

THE SOCIAL PSYCHOLOGY OF SHYNESS:
TESTING A SELF-PRESENTATIONAL MODEL

By

Mark Richard Leary

A DISSERTATION PRESENTED TO THE GRADUATE COUNCIL OF
THE UNIVERSITY OF FLORIDA
IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
DEGREE OF DOCTOR OF PHILOSOPHY

UNIVERSITY OF FLORIDA

1980

ACKNOWLEDGEMENTS

The author wishes to express sincerest appreciation to all those who contributed their time, effort, and patience to the completion of the present project. First and foremost, I would like to thank Dr. Barry R. Schlenker, committee chairman, academic advisor, and friend, for his interest, expertise, and guidance through all phases of my graduate career, including the present study. I can not imagine having a more educational, productive, and amicable relationship with one's major advisor than I have had with Dr. Schlenker for the past four years. The bulk of my professional development has been a result of his tutelage. I would also like to thank the members of my supervisory committee for their substantial contributions, not only to the present study, but to my graduate education at various points; many thanks to Dr. Marvin Shaw, Dr. Larry Severy, Dr. James Algina, and Dr. Ted Landsman. Three very capable and hard-working experimenters assisted in the data-collection phase of the study; I would like to thank Jan Faust, Ellen Siegal, and Dan Griffin for their help. Finally, I would like to thank my parents, Edward and Eleanor Leary, who were instrumental in getting me interested in school at an early age and have been nothing but supportive throughout 20 long years of education.

TABLE OF CONTENTS

	Page
ACKNOWLEDGEMENTS	ii
ABSTRACT	v
CHAPTER	
I INTRODUCTION	1
The Concept of Shyness	2
Shyness and Self-Presentation	10
Antecedents of Shyness	17
Motivation to Impress Other Interactants ...	17
Doubts About One's Ability to Achieve	
Satisfactory Reactions	22
Behavioral Accompaniments of Shyness	36
Summary and Experimental Hypotheses	44
II METHOD	47
Subjects	47
Procedure	47
III RESULTS	54
Manipulation Checks and FNE Data	54
Ambiguity Manipulation	54
Feedback Manipulation	55
Fear of Negative Evaluation: Subject Data .	58
Experimental Subjects' Self-Reports	58
Self-Reports of Shyness and Relaxation	58
Motivation to Make a Favorable Impression	
and Perceived Success of Doing So	66
Ratings of the Other Subject	69
Ratings by Nonexperimental Subjects	70
Ratings of Shyness and Relaxation	70
Evaluations of the Experimental Subjects ...	75
Miscellaneous Ratings	82
Observational Data	84
Initiation of Conversation	85
Time Spent Talking	85
Number of Questions Asked	90
Raters' Judgments of Shyness	92
The Nonexperimental Subjects' Behavior	97
Social Avoidance and Distress Scale	104
Sex Differences	106

IV	DISCUSSION	107
	Major Hypotheses	107
	Self-Reports of Shyness and Relocation	108
	Nonexperimental Subjects' and Judges'	
	Ratings	110
	Self-Presentational Concerns: Liabilities	
	and Assets	117
	Methodological Issues and Suggestions for	
	Future Research	120
	Summary	124
	APPENDICES	125
A	INITIAL SUBJECT INSTRUCTIONS	127
B	BACKGROUND INFORMATION QUESTIONNAIRE	129
C	INSTRUCTION SHEETS CONTAINING AMBIGUITY	
	MANIPULATION	134
D	BACKGROUND INFORMATION SCORESHEET	138
E	POST INTERACTION QUESTIONNAIRE: EXPERIMENTAL	
	SUBJECT	140
F	POST INTERACTION QUESTIONNAIRE: NONEXPERI-	
	MENTAL SUBJECT	143
G	NUMBER OF SUBJECTS PER CELL	146
	REFERENCES	147
	BIOGRAPHICAL SKETCH	154

Abstract of Dissertation Presented to the Graduate Council
of the University of Florida in Partial Fulfillment of the
Requirements for the Degree of Doctor of Philosophy

THE SOCIAL PSYCHOLOGY OF SHYNESS:
TESTING A SELF-PRESENTATIONAL MODEL

By

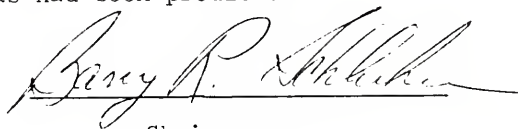
Mark Richard Leary

August, 1980

Chairperson: Barry R. Schlenker
Major Department: Psychology

A social psychological model of shyness is presented that conceptualizes shyness as a state of social anxiety arising in real or imagined contingent interactions in which people are motivated to make a favorable impression on others, but doubt their ability to project images of themselves that will produce satisfactory reactions from them. People may doubt their ability to come across satisfactorily to others either because they are unable to determine the nature of the image that will result in satisfactory reactions from others, or know how to act, but feel incapable of projecting the desired image. It was hypothesized that any situational or dispositional variable that increases the motivation to make a favorable impression upon others or doubts in one's ability to appear to others in a way that results in satisfactory reactions should increase the probability that the individual will feel shy.

An experiment was conducted in which subjects classified as high or low in Fear of Negative Evaluation were motivated to project a particular image to another individual. Subjects were either told how people who project the image tend to act, or had no idea of how to project the image. In addition, subjects received bogus feedback indicating that they were high, average, or low in the ability to project the image, or received no such information. Data obtained from subjects' self-reports of shyness, others' ratings of the subject, and subjects' verbal behaviors in a dyadic interaction tended to support the model, although the results were not perfectly consistent. Increased shyness tended to be associated with high Fear of Negative Evaluation, high ambiguity regarding the nature of the image likely to result in satisfactory reactions from others, and the belief that one ranked low in the ability to make good first impressions upon others, although these variables did not interact, as had been predicted.

A handwritten signature in dark ink, appearing to read "Gary R. Hildner", written in a cursive style with a horizontal line underneath.

Chairperson

CHAPTER I

INTRODUCTION

Nearly everyone experiences shyness in some social situations. For some, the experience is infrequent and mild; for others, it is frequent and severe, and regularly interferes with their social lives. The best estimates indicate that approximately 40% of all Americans consider themselves to be shy and that more than half regard shyness as an occasional personal problem (Lazarus, 1976; Pilkonis, 1976, 1977a, Zimbardo, 1977; Zimbardo, Pilkonis, & Norwood, 1974).

Yet, despite the prevalence of the experience and the degree to which many consider it a personal (or interpersonal) problem, shyness has received little empirical or theoretical attention from social psychologists. A few descriptive-correlational studies have been conducted, but the topic lacks a thorough conceptual analysis that identifies social factors involved in the experience of shyness and provides a framework for understanding the behavioral and interpersonal consequences of it.

This dissertation presents a social psychological model of shyness that conceptualizes shyness as social anxiety arising from interpersonal concerns about one's self-presentations and inability to control others' reactions to the individual. First, prior conceptual analyses of shyness and

related concepts will be examined and a working definition of shyness proposed. After discussing the nature of self-presentation, a theory of shyness will be presented and factors involved in the experience of shyness, both situational and dispositional, will be examined in detail. Behavioral manifestations of shyness will be dealt with in terms of the model, and hypotheses advanced regarding the causes and consequences of shyness. An experiment will then be described in detail that examines hypotheses derived from the theory.

The Concept of Shyness

Like many "everyday" words that have been adopted for specialized usage by psychologists, the term "shyness" is overburdened by a diversity of meanings. In short, the term has been used to refer to a subjective experience of discomfort and anxiety in the presence of others, to typical physiological and behavioral manifestations of such anxiety (such as overt signs of discomfort--blushing, awkwardness, reticence, tentativeness), and to a personality disposition to experience social anxiety and respond in such ways.

By far the most work on shyness has focused on the identification of it as a personality trait (see Crozier, 1979, for a review of these studies). For example, Cattell (1973) identifies shyness as one component of the H-negative or threctic personality. Threctic individuals are highly susceptible to threat, according to Cattell, because of an overly active sympathetic nervous system that overresponds to physical and social assaults upon the individual. As a result, such people tend to be shy, timid, restrained, and sensitive,

as contrasted to paramic individuals, who tend to be adventurous, bold in social encounters, and "thick-skinned." Cattell suggested that threctia has an inherited component and decreases with age beyond adolescence.

Similarly, Comrey (1965; Comrey & Jamison, 1966) identified shyness as one of six "factored homogeneous item dimensions" obtained from factor analyses of 216 personality trait items. Items loading highest on the shyness factor included shyness, seclusiveness, reserve, stage fright, and follower-role.

Hans Eysenck (Eysenck & Eysenck, 1968) has identified shyness as a component of introversion. Unfortunately, through the popularity of Eysenck's work on introversion-extraversion, shyness and introversion are often treated as if they are synonymous, which they are not. For example, Zimbardo (1977) blurs the distinction between the two concepts when he writes:

At one end of the shyness continuum are those who feel more comfortable with books, ideas, objects, or nature than with other people. Writers, scientists, inventors, forest rangers, and explorers might well have chosen a life's work that enables them to spend much of their time in a world only sparsely populated with humans. They are largely introverts, and association with others holds limited appeal compared to their needs for privacy and solitude. (p. 29).

It must be stressed at this point that although the types of people described by Zimbardo may be introverts--people whose thoughts and interests are primarily directed inward rather than toward others--it does not follow that they are necessarily shy. As will be detailed below, an introverted

preference for solitary activities constitutes shyness only if the preference arises from the individual's anxiety and discomfort in social encounters. A person may be introverted for nonsocial reasons; for example, it may be that the private and aloof writer is simply caught up in his work, but is not socially anxious when in the presence of others. (On the other hand, a shy person may appear quite outgoing and confident despite subjectively experienced anxiety.) Although shyness and extraversion are moderately negatively correlated ($r = -.43$, $p < .01$; Pilkonis, 1977a), the concepts of shyness and introversion are not interchangeable and should not be confused. Shyness involves social anxiety, and this is not a necessary component of introversion.

In short, numerous studies (Crozier, 1979) have shown there to be identifiable individual differences in the degree to which people respond "shyly" in social encounters. Although such trait approaches are interesting, they root shyness in the character of the individual and direct attention away from interpersonal processes that precipitate the experience and behavioral manifestations of shyness.

Other approaches to the concept of shyness have defined shyness in terms of tentative and inhibited behavior. Pilkonis (1977a) defines shyness as a "tendency to avoid social interaction and fail to participate appropriately in social situations" (p. 585), while Buss (1980) defines it as "the relative absence of expected social behaviors" (p. 184). These two definitions have three problems in common.

First, they rely too heavily on overt manifestations of shyness even though shyness may be experienced without obvious behavioral consequences. Some individuals can appear outwardly calm even though they experience anxiety and show subtle physiological or behavioral signs of it. Zimbardo (1977) cites several examples of stage performers who consider themselves quite shy despite their public appearance of poise and self-control. These considerations create problems for definitions of shyness that focus exclusively on grosser behaviors such as the avoidance of interaction or the absence of appropriate behaviors.

Second, as mentioned earlier, shyness must be distinguished from other possible reasons why people might fail to respond appropriately in social encounters. People often avoid particular others not because they feel anxious, awkward, or fearful in their presence, but because they prefer other, solitary activities. Introverts, for example, prefer solitary activities to social interaction, but are not necessarily shy when interacting with others.

Third, these approaches fail to mention the one aspect of shyness that is universally reported as a component of the experience: subjective anxiety (Zimbardo, 1977). Thus, it would seem useful to define shyness as an experience of anxiety that occurs under certain conditions, then identify behaviors that tend to accompany the experience, while not making such behaviors a sufficient part of the definition.

Zimbardo (1977) equates shyness with a type of people-phobia: "to be shy is to be afraid of people, especially

people who for some reason are emotionally threatening" (p. 23). This definition, although focusing on shyness as a subjective experience, is unacceptably broad. There are many reasons why an individual might fear other people aside from shyness; one may be approached by an angry drunk, be lost in a large city after dark, or fear reprimand by a dissatisfied superior. Similarly, Buss' (1980) definition of social anxiety as "discomfort in the presence of others" (p. 204) fails to distinguish between social anxiety and other forms of discomfort (e. g., being too hot, feeling ill, being crowded) that may occur when other people are around.

In short, no single definition of shyness has been proposed that is entirely satisfactory. The definition to be used throughout this report is that shyness is a state of social anxiety resulting from real or imagined contingent interactions in which no event has threatened the individual's public image. It will be helpful to clarify the key concepts in this definition before proceeding.

First, by state, we are referring to a transitory condition of an organism that fluctuates over situations and time. While wishing to avoid the trait vs. state anxiety issue here (e.g., Spielberger, 1968), it should be simply made clear that we are referring to shyness as a state of anxiety, with the full realization that there are individual differences in the degree to which people experience this state. As will be discussed in detail below, certain personality traits may "predispose" certain people to experience such anxiety more often and/or more acutely than others.

Anxiety is a negative affective reaction that is characterized by apprehension about an impending, potentially negative outcome. The apprehension may be conscious or unconscious, the impending threat real or imagined, and the source of the anxiety may be either internal or external to the person (Lesse, 1970). Anxiety is manifested in measurable physiological and behavioral reactions (e.g., palmar sweating, muscular tension, increased pulse, verbal dysfunctions), although these signs may not always be obvious to external observers. This becomes more likely to the degree that such behaviors are under a certain amount of voluntary control.

Shyness results from real or imagined interactions. Thus, one might experience shyness while in a social encounter, while contemplating such an encounter, or while imagining that one is interacting with others.

Interactions differ in the degree to which the interactants' responses follow from or are contingent upon the responses of other interactants (Jones & Gerard, 1967). In contingent interactions, the responses of a given individual are heavily contingent upon the preceeding responses of other interactants. Although each individual in a contingent interaction, such as a conversation, may have interaction goals (and plans about how these goals may be achieved) that partially guide their behaviors, their immediate responses must, to a degree, follow from and be guided by others' responses. In noncontingent encounters, the individual's behavior is

guided primarily by one's plans and only minimally, if at all, by others' responses. An actor in a play, a person delivering a prepared speech, a musician on stage, and a supervisor giving directions to workers are all in noncontingent interactions vis-a-vis their audience. (They may be in a contingent interaction in relation to co-performers at the same time, however.) Their behaviors are basically predetermined by their plans for the encounter and, unless unexpected events occur (such as the audience becomes unruly), the behaviors will be executed as planned with only minimal responsiveness to the audience.

Of course, in real life, there are few purely noncontingent interactions. Even an actor on stage is minimally aware of and responsive to audience cues. Nevertheless, the distinction is a useful one, for it allows identification of different classes of factors that precipitate shyness (in contingent interactions) versus audience anxiety (in noncontingent interactions) and posits slightly different behavioral reactions to social anxiety depending upon the nature of the encounter in which it occurs. For example, in most noncontingent encounters, people are operating from some degree of a behavioral plan, whether it is an explicit script, speech, or composition that they are to perform or merely an implicit idea about how they are going to behave. Thus, once in a noncontingent interaction, people are unlikely to have doubts about how they should respond, although they may doubt their ability to execute their plans successfully. In contingent interactions, however, people may have little or

no behavioral plan, or else be forced to continually modify their plan in light of others' responses. In such encounters, doubts about how one should respond may be high, resulting in anxiety. On the behavioral side, the contingent-noncontingent distinction has implications for how people deal with anxiety-producing situations. Reticence and premature withdrawal from the encounter are much more likely to be consequences of shyness than audience anxiety, for example.

Although a full discussion of the different implications of contingent versus noncontingent interactions for the antecedents and consequences of social anxiety goes beyond the scope of the present discussion, it should simply be stated that the focus of the model presented here is upon anxiety resulting from contingent interactions--shyness--and we will have little further need to refer to noncontingent encounters or audience anxiety.

The final qualification of the present definition, that shyness occurs only in interactions in which no event has threatened the individual's public image, allows a distinction to be drawn between shyness and embarrassment. As will be discussed below, embarrassment is a state of social anxiety that occurs when events appear to repudiate self-relevant images an individual desires to claim (Schlenker, 1980), and may occur in either contingent or noncontingent interactions. As Buss (1980) observes, the apprehensions that occur with shyness are future-oriented, whereas embarrassment occurs in reaction to a particular past

event. In the case of shyness, no event has occurred that reflects unfavorably upon the individual's self-presentations.

The theory presented below proposes that underlying the experience of shyness are people's misgivings about the ways they are being or will be perceived by others. Specifically, shyness is conceptualized as a state of social anxiety arising in real or imagined contingent interactions in which people are motivated to make a favorable impression upon others, but doubt their ability to project images of themselves that will produce satisfactory reactions from them. We will examine this proposition in detail after discussing the nature of self-presentation.

Shyness and Self-Presentation

Through all facets of their appearance, speech, and behavior, people lay claim to particular social identities that have implications for how they are evaluated and treated by others (Goffman, 1959; Schlenker, 1980). Since others' responses to the individual are based in large part upon their perceptions of him/her, it is usually in people's best interests to convey particular images of themselves to those with whom they interact, a process called self-presentation. Specifically, self-presentation is defined as the conscious or unconscious attempt to control the self-relevant images that are projected in real or imagined social interactions (Schlenker, 1980). An image is defined as a mental picture, categorization, or schema of a person, object, or event.

If one's projected images are appropriate and acceptable to those the individual interacts with, then he or she usually stands to gain valued outcomes, such as friendship, material rewards, respect, acceptance, and so on. If the projected self-images are deemed undesirable or inappropriate by others, the actor is likely to receive negatively valued outcomes, such as disapproval, loss of public esteem, punishment, or ostracism. Thus, most people are highly motivated to control the nature of their self-presentations in order to maximize their reward-cost ratio in social interactions.

It is important to note that self-presentation is not necessarily deceptive or discrepant from the individual's self-concept. In most cases, in fact, self-presentation merely involves bringing certain of one's actual attributes or accomplishments to another's attention. Of course, it is also common for people to deliberately attempt to project impressions of themselves that are not in line with the way they "really" are. In addition, it should be emphasized that self-presentation is not always a deliberate strategic attempt to produce a desired impression upon others. It can also reflect a well-ingrained, habitual response triggered by relevant social cues (Schlenker, 1980).

When people believe that their public images are attractive and acceptable to others, are not likely to be challenged or repudiated, and are resulting in hedonically satisfactory reactions from others, they should feel quite secure in the ongoing interaction.

When a person senses that he is in face, he typically responds with feelings of confidence and assurance. Firm in the line he is taking, he feels that he can hold his head up and openly present himself to others. He feels some security and some relief
(Goffman, 1959, p. 8)

In such a situation, people are reaping valued outcomes from their desirable images and are free from the anxiety of presenting an image that is likely to result in undesirable reactions, whatever their form, from others.

At the opposite extreme, an individual's public image may be damaged by an undesirable event (such as a blunder that makes one look foolish or undesirable) or by the repudiation of a projected image (such as when one is unable to live up to the claims contained in a particular presentation). In such cases, people usually become embarrassed and the interaction breaks down, at least temporarily (Buss, 1980; Goffman, 1955; Modigliani, 1971).

In a large percentage of social interactions, however, the situation lies between these two extremes. Although nothing has happened to damage the individual's social identity, people may not always believe that they are coming across to others as well as they would like. People in this state are not embarrassed, but neither do they believe they are projecting images of themselves that will result in them receiving desired reactions from other interactants. They may think they will not be able to project the types of images the other interactants value, that they will not project the quantity of the valued image, or they will be unable to live up to images they have already attempted to claim, with

the consequence that they will be regarded negatively for dissimulation.

If people in such a state believe that there is a low probability of their social images resulting in valued reactions from others, no matter what they might do, they would be expected to feel shy. Thus, shyness is proposed to be a state of anxiety arising in real or imagined contingent interactions in which people are motivated to make a favorable impression on others, but doubt their ability to project images of themselves that will produce satisfactory reactions from them. To clarify the basic proposition of the model, it will be useful to closely examine its key concepts. "State," "anxiety," and "real or imagined contingent interactions" were discussed earlier.

People are motivated to make a favorable impression on others to the degree that the others are in a position to impart outcomes having a high positive or negative value to the individual. These outcomes may be either social rewards and punishments (e.g., friendship, praise, respect, disliking, vengence) or tangible material and physical gains or losses (e.g., raises, fines, demotions, pain). The higher the absolute value of such outcomes to the individual, the more motivated he or she should be to make a favorable impression on those who mediate them.

People doubt their ability to project images of themselves that produce satisfactory reactions when they believe there is a low probability of controlling the impressions others form of them, given the actor's goals in the interaction.

A number of possible reasons why people might doubt their ability to project certain images in an encounter are discussed at length below.

A satisfactory reaction from others is defined as another's response to an individual that has a positive rather than a neutral or negative subjective value to the individual. Anticipated reactions from others are evaluated by the individual in terms of his or her comparison level (Thibaut & Kelley, 1959). Anticipated reactions that meet or exceed this level should be regarded as satisfactory by the individual; those that fail to meet the comparison level should result in dissatisfaction, and this dissatisfaction would be expected to increase as the discrepancy between the anticipated reaction from others and the actor's comparison level increases.

The concept of comparison level is important here because it helps explain why people who are, as judged by outside observers, coming across well socially and being responded to quite positively may still feel shy. As people's comparison levels increase, their standards are raised, and they must anticipate receiving increasingly valued responses from others in order not to feel dissatisfied with others' reactions. Given the same positive reactions from others, a person with a low comparison level may feel quite satisfied and secure, whereas a person with a higher comparison level might feel dissatisfied and anxious. Bandura (1969, p. 37) notes that "many of the people who seek treatment [for social anxiety]

are neither incompetent nor anxiously inhibited, but they experience a great deal of personal distress stemming from excessively high standards for self-evaluation, often supported by unfavorable comparisons with models noted for their extraordinary achievements."

In summary, it is hypothesized that shyness arises as a joint function of the motivation to make a favorable impression on others and the presence of self-doubts regarding one's ability to control such impressions in a manner that results in satisfactory reactions from them. Thus, as either the motivation to impress others or doubts about one's ability to achieve satisfactory reactions increases, the potential for feeling shy should increase. Obversely, if the motivation to make a favorable impression is low or people believe they are able to project images that will result in satisfactory reactions from others in a particular encounter, shyness should be minimal.

Other writers have previously suggested that shyness and social anxiety may be linked to concerns with how one is appearing to others. In The Expression of Emotion in Man and Animals, Charles Darwin (1872/1955) suggested that shyness-induced blushing results from self-attention due to concerns with one's appearance before others: "It is not the simple act of reflecting on our own appearance, but thinking what others think of us, which excites a blush" (p. 325). He added that, "shyness seems to depend on sensitiveness to the opinion . . . of others," although Darwin suggested that

shyness resulted primarily from concerns with one's physical appearance. He also noted that people are seldom shy in the presence of those with whom they are familiar, and "whose good opinion and sympathy they are perfectly assured" (p. 330). In short, Darwin's early analysis is clearly congruent with the self-presentational model of shyness presented here.

More recently, Dixon, de Monchaux, and Sandler (1957) factor analyzed 26 items from the Tavistock Self-Assessment Inventory that could be classed under the broad heading of social anxieties. In addition to a large general social anxiety factor, four factors emerged, each of which dealt with a different aspect of people's concerns with how they are perceived by others. The factor of social timidity refers to the fear of creating an adverse impression due to awkwardness resulting from not knowing how to behave in certain situations. The second factor, loss of control, reflects concerns with losing bodily control in social situations, such as stumbling, vomiting, or becoming ill. Presumably, such fears arise primarily because of how the actor appears in light of such unfortunate events. Exhibitionism, the third factor, refers to anxiety resulting from being the center of attention, while the fourth, fear of revealing inferiority, reflects fears of being negatively evaluated by others because of personal inadequacy. All four factors reflect not only concerns with one's public image, but concerns over situations in which one has minimal, if any, control over how one is appearing to others.

Antecedents of Shyness

According to the conceptualization presented earlier, two major factors are implicated in the experience of shyness: (a) the motivation to make a favorable impression upon others, and (b) doubts about one's ability to project images that will result in satisfactory reactions from others. Let us examine each of these classes of antecedents separately.

Motivation to Impress Other Interactants

A necessary precondition for the experience of shyness is that the individual be motivated to make a favorable impression upon others in the service of obtaining desired reactions from them. The individual who has absolutely no concern for how he or she is regarded in a particular encounter would not be expected to feel shy on that occasion. In addition, the potential for shyness should increase as the motivation to impress other interactants increases.

The motivation to make a favorable impression upon others should be a direct function of the subjective worth of the others' reactions to the individual. The greater the value of others' potential reactions, the more the individual should be motivated to project images the others might value in an attempt to achieve such reactions. A number of factors would be expected to affect the subjective value of others' reactions.

First, the subjective value of others' reactions is directly related to the subjective value of tangible outcomes others are in the position to bestow. People should

be more motivated to impress those who are in the position to mediate very positive or very negative outcomes, such as promotions, raises, awards, physical harm, dismissal, and so on, than those who can not mediate such outcomes. Thus, the potential for shyness should be greater when one interacts with those who are powerful and influential vis-a-vis the individual than with those who are not.

Similarly, the reactions of certain people are rendered more valuable by their personal characteristics. The subjective worth of reactions from those who are perceived as attractive, competent, discriminating, or high in status should be higher than the reactions of those with less flattering personal characteristics (Tedeschi, Schlenker, & Bonoma, 1973). Thus, people should be more motivated to impress an important, highly esteemed audience, independent of tangible outcomes they might bestow, than a nonsignificant one, and would be more likely to feel shy when interacting with them. In support of the proposed relationship between audience characteristics and social anxiety, research has shown that people are more likely to report being shy when dealing with those who are perceived as powerful, competent, attractive, in authority, and of high status than with those who are not (Zimbardo, 1977).

People should also be more motivated to make a favorable impression when the self-relevant image of concern in a given encounter is seen as more attractive, important, or relevant to the individual's self-concept, and people should be more

motivated to achieve satisfactory reactions from others in response to them. A woman who prides herself as being intelligent and well-read, but not athletic, should be motivated to appear intellectual to others, but minimally concerned about appearing athletic. According to the present theory, a threat to her ability to appear intellectual to others should result in feelings of shyness, whereas her inability to appear athletic should not. Thus, people should be more likely to become shy when the self-image under consideration is an important one to them.

Particular situations also increase the motivation to make a favorable impression and thus the potential to become shy by increasing the saliency of others' possible reactions. For example, a man might feel more shy in an interaction with his boss shortly before promotion decisions are to be made.

In addition to situational factors that increase the motivation to appear well, a number of individual difference variables should be associated with heightened concerns with others' potential reactions and increase the chances that certain kinds of people would experience social anxiety in social encounters.

Fenigstein, Scheier, and Buss (1975) and Buss (1980) have suggested that public self-consciousness is a necessary, though not sufficient, precondition for social anxiety. People who are highly publicly self-conscious are particularly aware of how they are regarded and treated by others

and are sensitized to others' evaluations of them (e.g., Fenigstein, 1979). People who are low in public-self-consciousness, on the other hand, have little awareness of or interest in how they are coming across to others. Since others' evaluations are more salient to high than low public self-conscious individuals, highs should be more motivated to make a favorable impression upon those with whom they deal. Even so, they should not feel shy unless they also doubt their ability to make those impressions and achieve satisfactory reactions.

Research has shown that public self-consciousness is minimally but significantly correlated with measures of social anxiety. Fenigstein et al. (1975) and Pilkonis (1977a) found correlations in the vicinity of $+ .20$ (p 's $< .05$) between public self-consciousness and the social anxiety subscale of the Self-Consciousness Scale (Fenigstein et al., 1975). In addition, Pilkonis (1977a) obtained a correlation of $+ .19$, and Cheek and Buss (1980) a correlation of $+ .26$ (p 's $< .05$) between public self-consciousness and self-reported shyness. Thus, it appears that public self-consciousness may increase people's potential for becoming socially anxious by increasing their concerns with interpersonal evaluation.

People who are high in need for approval (Crowne & Marlowe, 1964) should also be more highly motivated to make a favorable impression upon others than those who are low in need for approval. Although originally conceived as a motive

to gain others' acceptance and approval by appearing in socially desirable ways, recent research has suggested that people who score high in need for approval are primarily motivated to avoid disapproval (Berger, Levin, Jacobson, & Milham, 1977). Regardless, people who are highly motivated to gain approval and/or avoid disapproval should be highly motivated to make the impression that would allow them to achieve those goals, and should be more likely to become shy as a result.

Watson and Friend (1969) have shown that a high Fear of Negative Evaluation (FNE) score on their Social-Evaluative Anxiety Scale is also associated with a concern to obtain social approval and avoid disapproval from others. Compared to subjects classified as low FNE, high FNE's have been shown to: work harder on a boring letter-substitution task when they believed that hard work would be explicitly approved of by their group leader (Watson & Friend, 1969), attempt to avoid potentially self-threatening social comparison information to a greater degree (Friend & Gilbert, 1973), and prefer to be in a positive asymmetrical relationship (being liked by another more than one likes the other) rather than a balanced relationship (mutual equal liking) (Smith & Campbell, 1973). In addition, FNE was found to correlate significantly ($+ .77$, $p < .01$) with social approval-seeking as measured on Jackson's (1966) Personality Research Form (Watson & Friend, 1969). All of these findings portray the high FNE individual as being highly motivated to gain

approval and avoid disapproval. Thus, it would be expected that high FNE's would be more likely to become socially anxious when their ability to come across well to others was threatened. Indeed, FNE has been found to correlate significantly with Social Avoidance and Distress ($r = +.51$, $p < .01$; Watson & Friend, 1969).¹

Doubts About One's Ability to Achieve Satisfactory Reactions

The motivation to make a favorable impression upon others is hypothesized to be a necessary, but not sufficient, condition for the occurrence of shyness. Not only must individuals be motivated to make a favorable impression, but they must also doubt that they will be able to do so in a way that will result in satisfactory reactions from other interactants.

Two major factors should lead people to doubt their ability to project images that will result in satisfactory reactions from others: (a) they find it difficult to determine how to achieve satisfactory reactions, or (b) they believe they know how others will react to certain self-presentations, but don't believe they can successfully

¹As its name implies, the Social Avoidance and Distress (SAD) Scale (Watson & Friend, 1969) was originally developed as a measure of subjective anxiety experienced in social encounters and the tendency to avoid social situations. However, a factor analysis by Patterson and Strauss (1972) found that most of the items on the SAD Scale loaded on an affiliation-extraversion factor, suggesting that the SAD taps primarily approach-avoidance tendencies and only secondarily social anxiety.

convey those images that are likely to result in satisfactory reactions from them.

Uncertainty about how to achieve satisfactory reactions.

Research has shown that people tailor their self-presentations to the contingencies of the situation and to the values of those with whom they are interacting (e.g., Jones, Gergen, & Jones, 1963; Jones, Gergen, Gumpert, & Thibaut, 1965; Jones & Wortman, 1973; Schlenker, 1975, 1980). Thus, when people are motivated to make a favorable impression, they usually seek information regarding the types of images others are likely to value (Schlenker, 1980).

When people believe they know an audience's values and preferences, they are able to formulate a behavioral plan that guides their responses during the course of interaction. Under certain circumstances, however, cues regarding others' values may be absent, vague, inconsistent, or contradictory. Uncertain of other interactants' personalities, values, and probable reactions to certain behaviors, people are unable to determine how they may achieve satisfactory reactions from them and are unable to formulate a plan for the interaction. Without such information and an overriding plan, the possibility of appearing in an unfavorable light and evoking an undesirable response becomes more salient, and people are more likely to doubt that they will be able to project a favorable image. On the other hand, "shyness is less of a problem in those contexts where influences such as task demands and role requirements remove the ambiguity present in 'unfocused' interpersonal encounters" (Pilkonis, 1977b, p. 604).

Dibner (1958) observed that "anxiety is directly related to the degree of ambiguity in the situation to which the individual must make some adjustive reaction . . . and . . . the probability of uncertainty is greater whenever external conditions are ambiguous" (p. 165). Dibner defined situational ambiguity in terms of the degree of consensus that outside observers might reach regarding the interpretation of the characteristics of a situation. However, ambiguity is more than a potential lack of consensus. A group of observers might all independently agree in their interpretation of a situation and in their prescriptions regarding appropriate behavior in it, yet each have low confidence in his own judgment. Thus, to the individual in a social encounter, perceived ambiguity may be regarded as an inverse function of one's confidence in one's interpretation of the situation and in decisions regarding how best to respond to maximize one's own reward/cost ratio in the encounter.

Thus, people should experience shyness when they are motivated to make a favorable impression upon others, but are uncertain of how to do so. In support of this, survey data obtained by Zimbardo (1977) showed that shyness is experienced quite frequently in novel situations and in encounters involving strangers--people about which the individual, by definition, knows very little. Buss (1980) observes that "the most frequent and important situational cause of shyness appears to be novelty" (p. 187).

In addition, Pilkonis (1976, 1977b) had subjects participate in an unstructured face-to-face interaction, then

deliver a speech into a videocamera, a task he conceptualized as more structured. He found that "shyness was evoked by ambiguous, unstructured episodes (the same-sex and opposite-sex interactions), but was less apparent during the structured episode (the preparation and delivery of the speech)" (Pilkonis, 1976, p. 96), although it should be noted that the structured and unstructured episodes in this study differed on other important variables (one was a face-to-face interaction, whereas the other was an impersonal delivery of a prepared speech, for example).

In short, the available evidence seems to support the hypothesis that ambiguity regarding how best to respond in order to achieve satisfactory reactions may result in heightened shyness. However, the evidence is minimal at best and this hypothesis merits additional research.

Uncertainty about how to respond and about what images to project may also arise when other interactants respond in an unexpected or counternormative fashion. When this occurs, the interaction itself is disrupted and the individual is forced to respond to a situation for which he/she has no readily available cognitive script (Abelson, 1976). Geller, Goodstein, Silver, and Sternberg (1974) exposed subjects to a situation in which they were ignored during a face-to-face interaction by two confederates who talked freely to one another. Under such circumstances, subjects reported that the situation was highly ambiguous, that they were unsure of how to respond, and that they felt shy.

Similarly, when another interactant invokes social norms to which the individual is unwilling or unable to respond, uncertainty arises regarding how to behave. For example, a norm of reciprocity surrounds the disclosure of personal information, such that, when one interactant is self-disclosing, others are expected to follow suit (Derlega, Wilson, & Chaikin, 1976). If this norm is unexpectedly invoked by the inappropriate disclosures of another, the individual may not know how best to respond and may feel shy (cf. Buss, 1980).

Certain individual differences may exacerbate the problems encountered in ambiguous situations or lead certain people to interpret a larger number of social situations as ambiguous. First, there are differences in people's sensitiveness to social cues regarding appropriate or desirable behavior (e.g., Snyder, 1974). People who are more adept at analyzing social situations for cues regarding appropriate demeanor should be better at assessing how to respond to achieve satisfactory reactions from others and, thus, less likely to experience anxiety from not knowing how to respond. Although the meaning of scores obtained on the Self-Monitoring Scale (Snyder, 1974) has recently been called into question (Briggs, Cheek, & Buss, 1980; Gabrenya & Arkin, 1980; Silver, Leary, & Schlenker, 1980), it would be predicted that people who are higher in the ability to glean cues regarding how to respond and adjust their behavior

accordingly (i.e., high self-monitoring ability) would be less likely to feel shy and inhibited in social encounters.

In support of this, Pilkonis (1977a) found self-monitoring ability to correlate negatively with self-reported shyness, although the correlation was significant only for males ($r = -.25$, $p < .05$). Ickes and Barnes (1977) examined the differences in the behavior of high and low self-monitors in unstructured interactions, and found that high self-monitors were more likely to initiate the conversation with the other subject and were rated as more relaxed than lows. In addition, unpublished data by Lippa (reported in Ickes & Barnes, 1977) show a significant positive correlation between self-monitoring and extraversion.

Second, there are likely to be individual differences in people's ability to respond "off the cuff"--that is, without well-formulated interaction plans. Some people appear quite able to fit into almost any social encounter, whereas others are socially paralyzed in the face of social uncertainty.

When people are uncertain of how to behave in order to make a favorable impression on others, they are likely to show signs of hesitancy, reticence, awkwardness, withdrawal and/or avoidance. At the extreme, uncertainty and its accompanying anxiety may be great enough to result in social paralysis (cf. Kelley, 1967; Jones & Gerard, 1967). The shy individual may stand silent, thoughts racing, but unable to respond. McGovern (1976, p. 94) notes that, "the response

of no response may be a learned method of coping with ambiguity and time pressure for these [highly socially anxious] individuals." Similarly, Philips (1968) suggests that chronic reticence may be caused by reticent individuals "not knowing the rules" in certain social situations.

In some cases, the individual in a socially ambiguous encounter may attempt to project innocuous images that would be expected to be at least minimally acceptable to most people, such as smiling and attempting to appear interested and friendly. In this way, the person avoids projecting images that may be inappropriate and that may result in unsatisfactory reactions. "When the socially cautious person does participate, the content of his contribution is generally 'safe.' He waits until he has learned what kind of comment his 'audience' will appreciate, or restricts his remarks to the patently nonoffensive" (Efran & Korn, 1969, p. 78). By responding noncommittally, the shy individual bides time as he or she attempts to glean cues that will suggest how best to come across to other interactants, and keeps attention off him- or herself by prompting other interactants, via questions and apparent interest, to continue talking about themselves.

To summarize, any factor that makes it difficult for people to formulate an interaction plan and to decide how to best maximize their social outcomes should result in shyness.

Doubts about one's self-presentational ability. Ascertaining the nature of the image likely to produce satisfactory

reactions from others is only one-half of the task faced by an individual wishing to make a favorable impression. Once the individual believes he or she knows how to respond appropriately, such images must then be successfully conveyed. The distinction here is between formulating a plan for action and successfully implementing the plan. Thus, individuals may experience shyness because they doubt their ability to present themselves to others in ways that will result in hedonically satisfactory outcomes.

First, people may entertain doubts about the quality of their interaction plans and lack confidence that their plans, no matter how well executed, will result in desired reactions. For example, learning that a young lady takes a great deal of pride in her tennis-playing ability, a male suitor may wish to compliment her strong serve and decides to do so, but mulls over the possibility that she will attribute his comment to mere ingratiation or even baser motives. Any factor that causes people to doubt the efficacy of their plans in producing satisfactory outcomes should increase the likelihood that they will become shy.

Second, even when people have what they believe are cogent plans for the accomplishment of their interaction goals, they may doubt their ability to execute those plans. That is, they may doubt their ability to appear to others in ways that will result in satisfactory outcomes. People should doubt their ability to claim valued images successfully when: (a) they don't believe they really possess the

attributes that allow them to meet the requirements for claiming the image and these deficiencies would come to the attention of other interactants if a particular self-presentation was attempted, or (b) they believe they don't have the expressive skills necessary to convey the image irrespective of whether or not they privately believe they meet the requirements of the image.

Since people who fail to live up to the images they present to others are negatively sanctioned (Goffman, 1959; Schlenker, 1980), people tend to refrain from projecting impressions that are likely to be publicly repudiated by the "facts" (Baumeister & Jones, 1978; Schlenker, 1975). Thus, in a situation in which projecting particular valued images would require dissimulation that may result in social repercussions, people will generally conclude that they are unable to claim the image and, if motivated to make a favorable impression, should feel shy. They may either believe that they can not claim the image at all or that they are unable to present themselves as possessing an adequate quantity of the attribute (by appearing extremely competent, for example) to make a sufficiently favorable impression upon other interactants.

In addition, in some cases people may privately believe that they possess the attributes that, if perceived by others, would result in satisfactory reactions, but believe they lack the expressive skills to convince others they actually possess those attributes. When people believe

they have the "right" to legitimately present certain images of themselves, but feel their self-presentations may be unsuccessful due to deficiencies in requisite social or expressive skills, they should feel shy. It is doubtful that people phenomenologically distinguish between not having an attribute and not having the expressive skills to convey the image of having the attribute. To the shy individual, either case is perceived as the inability to come across well to others.

A good deal of research has documented the relationship between the belief that one lacks valuable social attributes and feelings of social anxiety. Efran and Korn (1969) showed that socially "cautious" subjects held lower expectations of success on a variety of social and verbal tasks than socially "bolder" subjects, but that the two groups did not differ in their expectations of success on intellectual, athletic, or artistic pursuits. This suggests that the concerns of socially anxious individuals are specific to social deficiencies. In a comparison of high and low socially anxious students identified by Watson and Friend's (1969) Social Avoidance and Distress Scale, Cacioppo, Glass, and Merluzzi (1979) found that highly anxious subjects rated themselves more negatively, generated more negative self-statements in a thought-listing task, and rated themselves as less potent and active than low anxiety subjects.

Interestingly, socially anxious people's negative evaluations are confined to themselves. Although they

underestimate the quality of their social skills compared to observers' ratings of them and to low anxiety people's self-evaluations, low and high anxiety subjects (along with external observers) have been shown to agree in their appraisals of a confederate's social ability (Clark & Arkowitz, 1975). Thus, the tendency for shy people to underestimate their social performances is not likely to be due to a generalized set to see the social world negatively.

A number of studies have shown that counseling paradigms designed to reduce negative self-evaluations are effective in reducing social anxiety (e.g., Clark & Arkowitz, 1975; Meichenbaum, Gilmore, & Fedoravicius, 1971; Sanchez-Craig, 1976; Sherman, Mulac, & McCann, 1974). For example, Rehm and Marston (1968, p. 573) taught shy subjects to replace negative self-evaluations with cognitive self-reinforcement for appropriate social responses and found a decrease of anxiety in dating encounters. They concluded that "negative self-evaluation is a primary cue for anxiety" and that reduction of negative self-evaluations and the imposition of self-reinforcement should reduce social anxiety.

While this may be true, what has not often been made clear is that the multitude of negative self-statements one might make (e.g., "I'm not a good date/speaker/dancer/student/conversationalist/etc.") generally reflect not only self-evaluations, but concerns with how one is appearing to others. Thus, the present self-presentational approach to shyness would propose that it is not self-evaluation per se

that is critical in the genesis of shyness, but the belief that real or imagined others may evaluate oneself negatively.

Self-evaluation and anticipated public evaluation are, of course, ordinarily confounded in real-life situations. The individual who evaluates him- or herself negatively is likely to expect that others will also. Nevertheless, we may at least imagine the two cases of (a) an individual who regards himself very negatively but expects others in a particular encounter to regard him positively, or (b) an individual who regards himself positively but expects others to regard him negatively. The first individual (a), despite negative self-evaluations, should not feel shy; the second one (b), despite positive self-evaluations, should. In short, the critical factor in shyness (and other social anxieties) is one's perceived ability to project images that will result in satisfactory reactions from others, and not merely one's own self-image.

Even when one's interaction plans and one's ability to execute them are, in the abstract, beyond question, one must still contend with the responses of other interactants. Thus, people who doubt their ability to respond quickly and appropriately in an ad lib fashion, or who question their flexibility or their ability to respond contingently/reactively to others, should be more likely to feel shy in contingent interactions. Most of us have observed a confident and eloquent speaker who appears fully in control during his oration, but who falters nervously when entertaining questions

from the audience or when dealing with others on a one-to-one basis. Such a person may be confident of his ability to execute a well-structured and rehearsed plan (i.e., speech) in a noncontingent situation, but doubt his ability to make appropriate remarks in response to others' behavior.

Shyness should be exacerbated by situational and personality factors that, for whatever reason, cause people to doubt their ability to project images that will result in satisfactory reactions from others. One such set of factors is the characteristics of those with whom one is interacting. Shyness should be greater when one is interacting with critical, evaluative others than with supportive, nonevaluative ones, since the probability of receiving satisfactory reactions is greater in the latter than former case. Indeed, people report greater anxiety when interacting with evaluative audiences and authorities (Zimbardo, 1977).¹

As mentioned previously, perceived personal deficiencies, whether real or imagined, may lead people to doubt their ability to appear well to others. In as much as this is the case, people with lower self-esteem, who tend to perceive

¹As an aside, most psychologists, whatever their area of training, have had the experience of people expressing a degree of trepidation upon interacting with them because of the popular view that psychologists can "read minds." Presumably, because of the public's belief that psychologists are able to "analyze" people regarding their true personality, motives, desires, feelings, etc., people feel unable to project images that will result in satisfactory reactions from them. An interesting hypothesis is that the average person is more likely to experience shyness when interacting with a psychologist or psychiatrist than most other professionals.

themselves less favorably and assume others do as well (e.g., Walster, 1965), would be expected to be more shy across encounters. In support of this hypothesis, Zimbardo (1977) and Cheek and Buss (1980) report significant negative correlations between self-esteem and shyness (r 's = $-.48$ and $-.51$ for Zimbardo and Cheek & Buss, respectively, p 's $< .01$). Similarly, people with previous failures in the social arena may come to doubt that they are able to obtain satisfactory reactions from others. Once they have had unpleasant experiences and received negative evaluations from others, they may come to anticipate failure in similar situations.

In contrast to the above, there are instances in which people privately believe they don't meet the requirements for claiming certain attractive images, but believe they have the expressive ability to convey such impressions to others anyway. People who are motivated to make a favorable impression have been shown to exaggerate positive self-presentations when they believe there is only a small likelihood that their claimed images will be repudiated by contradictory information (Baumeister & Jones, 1978; Schlenker, 1975). When people believe that they can project images that will produce satisfactory reactions and their claims will likely go unchallenged, they should not feel shy even though they know the self-presentations to be inaccurate. Of course, the greater the possibility that nonveridical self-presentations will be discovered and negatively sanctioned by others, the more likely the individual will doubt that he/

she will be able to appear well and the more shy one should feel.

To summarize, shyness is hypothesized to be a joint function of the motivation to make a favorable impression on others and doubts about one's ability to appear to others in ways that will result in satisfactory reactions from them. People may doubt their ability to come across well to others either when they are unable to determine how to respond in a particular encounter or when they know how to respond, but feel unable to do so.

Behavioral Accompaniments of Shyness

If, as has been proposed above, shyness arises due to concerns with how one is appearing to others, we would expect many of the behavioral manifestations of shyness to reflect such concerns. Do the behaviors that typically accompany shyness appear to arise from self-presentational concerns?

Clearly, many of the behaviors that accompany subjective shyness are not interpersonal in nature. Many physiological changes, such as increased pulse, blood pressure, GSR, and muscular tension, are simply concomitants of any aroused, autonomic state.

The relationship between shyness and overt behaviors (those clearly observable to other interactants) is more complex. Because the appearance of nervousness is normally negatively evaluated in our culture, most people will attempt to conceal their anxiety, with the result that the affective

state of a social interactant is not always obvious to outside observers (Knight & Borden, 1978), whether they be other interactants or social psychologists. Research has shown there is only minimal to moderate congruence between observers' ratings of an individual's apparent social anxiety and ratings of subjectively experienced anxiety made by the individual himself (Clevinger, 1959; Farrell, Mariotto, Conger, Curran, & Wallander, 1979; Mulac & Sherman, 1975), and this is true even when the observers are trained speech teachers judging their students (Dickens, Gibson, & Prall, 1950). The largest correlation between subjects' self-reports and observers' ratings of shyness was obtained by Pilonis (1977b): $+ .58$. In general, observers tend to underestimate, rather than overestimate, others' subjective anxiety (Clevinger, 1959; Dickens *et al.*, 1950).

These findings are noteworthy for a couple of reasons. First, there is little reason to expect a close correspondence between self-reports of experienced shyness and behavioral manifestations of it, so that there is no sure way to determine from an individual's grosser, overt behaviors whether or not he or she is presently shy. (Even so, certain behavioral patterns do tend to accompany shyness, as will be discussed below.) Second, if people tend to underestimate others' subjective anxiety, they may conclude that they themselves experience a greater degree of shyness in social encounters than most other people. When it occurs in a situation in which the individual is socially anxious, such a

belief may itself evoke anxiety that exacerbates the original problem (Storms & McCaul, 1976).

The most commonly reported manifestation of shyness is a reluctance to speak freely in interactions (Zimbardo, 1977). Compared to nonshy individuals, shy people are more hesitant to initiate conversations, speak less frequently, speak a smaller percentage of the time, allow more silences to develop during conversations, and are less likely to break them (Pilkonis, 1976, 1977b). Also, highly socially anxious people write less on self-disclosure questionnaires, and engage in less intimate self-disclosure than people who are low in social anxiety (Post, Wittmaier, & Radin, 1978). Taken together, these studies portray the shy person as reluctant to engage in verbal interaction, hesitant to initiate conversations and keep them going, and, in general, participating as little as possible in verbal exchanges, especially ones dealing with self-relevant topics.

There is no a priori reason to expect shy individuals to decrease their verbal output. Why do socially anxious people respond in this way? Philips (1968) notes that reticence arises when people's anxiety about participating in verbal interactions with others outweighs their expectation of gain from the encounter and that reticence may serve to exempt the individual from full participation in anxiety-producing situations. Consider the plight of shy people: they are motivated to make a favorable impression upon others, but doubt that they will be able to appear in such

a way that others will respond favorably to them. Given such an interactional dilemma, reticence may be regarded as an appropriate and rational interpersonal strategy. When people believe they can not come across well to others no matter what they might do, they have nothing to gain and much to lose, and would be best off to do and say little or nothing at all. Even though nothing may be done to allow the individual to be perceived positively, this tactic helps the individual to avoid patently negative evaluations.

A study by Taylor, Altman, and Sorrentino (1969) clearly documented the relationship between negative interpersonal evaluations and decreased verbal output. Under conditions of negative interpersonal feedback, their subjects spoke less, talked about fewer aspects of themselves, and were less self-disclosing than subjects receiving positive feedback. Extrapolating to the present model, it seems likely that this tact would also be employed by shy individuals, to whom the possibility of less than satisfactory responses from others is highly salient.

In a review of the literature regarding the relationship between anxiety and speech, Murray (1971) concluded that anxiety and speech are curvilinearly related as an inverse-U function. Anxiety and speech are positively related to some asymptote, but speech decreases with increasing anxiety beyond that point. Although a wide variety of stressful stimuli have been used in these studies (e.g.,

threat of electric shock, negative evaluations from others, public speaking situations, stimulus deprivation, anxiety-producing conversational topics), they have generally been regarded merely as alternative ways to evoke anxiety.

However, the implicit assumption that all anxiety-producing stimuli are functionally equivalent vis-a-vis their effects on speech overlooks the fact that, in some cases, changes in speech behavior reflect not only an effect of autonomic arousal per se, but also serve personal or interpersonal functions for the anxious individual. In cases in which the precipitating stimuli are social in nature, the individual is likely to fear receiving negative reactions from others, and changes in verbal output may reflect the individual's attempt to maintain the best possible social image under the circumstances. If the shy individual believes that he or she is likely to evoke unsatisfactory reactions from others by talking to them, verbal output should decrease. Under some circumstances, however, the anxious individual may perceive that failing to interact is more likely to result in unsatisfactory reactions than is interacting poorly. In such cases, we might expect verbal output to remain stable or to increase. The relationship between shyness and speech appears to be quite complex and warrants future attention.

As with verbal behaviors, we would expect the nonverbal behaviors of shy people to reflect the attempt to present

the best possible social images of themselves to others under circumstances in which they do not think they will be regarded favorably by others. The few available findings support this notion. Pilkonis (1976, 1977b) found that self-reported shyness in an interaction was positively related to both smiling and head nodding. Natale, Jaffe, and Entin (1979) found social anxiety to be negatively correlated with verbal interruptions of another's speech and positively correlated with "back channel responses"--the brief interjections a listener makes while another is speaking to indicate that he/she is attentively listening (e.g., "uh-huh"). In each of these cases, the target behavior (smiling, nodding, not interrupting, back channel responding) may be conceived of as an attempt to appear friendly and interested when one believes that more complete participation in the encounter is likely to result in negative reactions from others.

Taken as a whole, such behaviors may serve at least four interpersonal functions. First, they allow the individual to maintain an innocuously sociable image that is at least minimally acceptable to most audiences and forestall possible negative consequences that might result from doing or saying something that will reflect poorly upon the individual. Second, they help the individual conceal his or her anxiety and overt manifestations of it (e.g., trembling, awkwardness) that might become obvious to others if the individual attempted to engage fully in the encounter.

If nothing else, the individual is able to maintain the impression that he or she is poised and under control (Kaplan, 1972). Third, the individual is able to direct attention from him- or herself to other interactants by paying a good deal of friendly interest in what they are saying. Finally, such behaviors may serve as stalling tactics that allow the individual to examine the situation more closely in order to determine how to respond appropriately before committing him- or herself to a line of action. The individual may thus bide time as he/she surmises how best to respond to make a favorable impression and achieve satisfactory reactions.

The fact that shyness appears to be associated with decreased amounts of eye contact (Pilkonis, 1977b; Zimbardo, 1977) seems to contradict the suggestion made above that the nonverbal behavior of shy people is designed to present them as favorably as possible to others. However, decreased eye contact might best be regarded as a form of psychological withdrawal from stressful situations, similar to that which occurs following an embarrassing situation (Modigliani, 1971). There is also some evidence that people engage in more contact with those from whom they expect approval (Efran, 1968). Since people in a shyness-producing situation are not expecting approval from others, their lower amount of eye contact may simply reflect a lower baseline of visual attention than that of people in an encounter in which they expect satisfactory reactions from others.

In extreme cases, shyness may result in complete withdrawal from or avoidance of certain interactions (Zimbardo, 1977). These are likely to be situations in which the individual believes that remaining in the situation will result in a decline in the positivity of his or her public image and in negative reactions from others. Such withdrawal from anxiety-producing situations removes the individual from the face-threatening encounter before all poise is lost and, if the exit is executed gracefully and with justification, may even help the individual's image (as when one claims to have another important engagement in order to leave a party).

The behaviors discussed above are the typical behavioral accompaniments of shyness. However, for a given individual, shyness is not always accompanied by blatant, shylike behaviors, such as quietness, awkwardness, or reduced eye contact. Some people are able to maintain a convincing facade of confidence and composure despite private misgivings about their ability to project valued images of themselves in a particular encounter. Thus, there is not a perfect relationship between the experience of shyness and behavioral manifestations of it, and all shy people will not be perceived as such by outside observers. However, when group data are examined in the context of research, we would expect people who are exposed to situations designed to heighten self-presentational concerns to, on the

average, exhibit more shylike behaviors and be rated more shy by others than people who are exposed to variables designed to minimize such concerns.

To summarize, many of the behaviors that tend to accompany shyness may be conceived of as devices for making the best out of a bad self-presentational situation. Given that shy people doubt that they will come across well no matter what they do, it is reasonable for them to remain as quiet as possible, engage in innocuously friendly behaviors that are likely to be minimally acceptable to nearly everyone, or to withdraw from the encounter when they feel unable to retain the appearance of poise. It should be noted that one possible consequence of such friendly behaviors is that, in some cases, shy people may be perceived by others as more friendly, interested, approving, and involved than people who are not shy.

Summary and Experimental Hypotheses

To summarize the theory presented here: shyness arises as a function of two factors, the motivation to make a favorable impression upon others and doubts about one's ability to do so in a way that results in satisfactory reactions from them. These factors are proposed to be multiplicatively related such that shyness is minimal as either approaches zero, but intensifies rapidly as both factors increase. Any situational or personality variable that increases either or both of these conditions is hypothesized to increase the potential for the individual to feel shy in that particular encounter.

The present study examined the effects of three such variables upon shyness. Subjects identified as high or low in Fear of Negative Evaluation (Watson & Friend, 1969) were led to believe that the possession of a particular (bogus) trait was associated with the ability to make favorable impressions upon others. The nature of this trait and its accompanying behaviors was either described to subjects or remained highly ambiguous. Thus, subjects either did or did not know how they could behave in order to make a highly favorable impression. Based upon a bogus personality test, subjects were then given feedback indicating that they were high, average, or low on this trait or they were given no information about their ability to make good first impressions. Subjects then interacted with another individual for five minutes, after which they completed self-report measures tapping, among other things, shyness. In addition, the subject was rated by the other individual regarding apparent shyness and other measures, and recorded tapes of subjects' conversations were coded for indices of shyness.

Based upon the theory presented above, it was predicted that:

a. Self-reported shyness, others' ratings of shyness, and verbal indices of shyness would increase as a function of Fear of Negative Evaluation, the ambiguity of the image ostensibly associated with making good impressions, and the negativity of the feedback regarding one's ability to make good impressions. Because these factors are proposed to be

multiplicatively related to shyness, the theory would predict (statistically speaking) a main effect of each factor, three two-way interactions, and a three-way interaction of the variables on measures of shyness.

b. Subjects' reported shyness would be correlated with their expressed self-presentational and evaluation concerns.

CHAPTER II

METHOD

Subjects

One-hundred and twenty-eight male and 128 female undergraduate students served as subjects in partial fulfillment of the experimental participation requirement of an introductory psychology course. They were run in same-sex pairs by one of two male or two female experimenters.

Procedure

The two subjects in each experimental session initially reported to separate rooms to prevent them from conversing with one another prior to the start of the study. After both subjects had arrived, the experimenter escorted them into the laboratory and seated them in chairs that were spaced .51 m. (20 in.) apart (at the nearest front legs) and angled toward one another at 100°. A microphone on a floor stand stood .56 m. (22 in.) directly in front of each chair.

Because the responses of two interacting subjects are not independent, it was decided that only one subject per session (randomly designated as the experimental subject) would receive the experimental manipulations and complete the dependent self-report measures. The other (nonexperimental) subject received no manipulations, but otherwise

participated fully in the experiment as described below and subsequently provided ratings of the experimental subject.

Subjects were told that the study was an investigation of certain factors that affect the kinds of first impressions people form of one another when they first meet. Subjects were informed that they would first complete a background information questionnaire, then interact with one another in a five-minute "getting acquainted" conversation. Afterwards, they would complete questionnaires on which they would rate and give their impressions of one another. The use of this cover story was designed to insure that subjects were at least moderately motivated to make a favorable impression upon one another during the five-minute conversation. The initial instructions given to subjects may be found in Appendix A.

After signing informed consent slips, subjects were placed in separate rooms to complete the "background" questionnaire. The questionnaire consisted of Watson and Friend's (1969) Fear of Negative Evaluation (FNE) and Social Avoidance and Distress (SAD) scales, and a shyness self-report item. The FNE is a 30 item true-false scale that measures apprehension about others' evaluations and distress over receiving negative evaluations from others. The SAD is a 28 item, true-false scale that measures the degree to which respondents experience anxiety and distress in social encounters and tend to avoid or withdraw prematurely from

social interactions. Both scales have high internal consistency (.94 for both FNE and SAD) and adequate test-retest reliability (.78 for FNE, .68 for SAD) and strong evidence of construct and predictive validity (e.g., Friend & Gilbert, 1973; Smith & Saranson, 1975; Watson & Friend, 1969).

In addition, subjects were asked to respond to the item, "In general, how shy of a person do you consider yourself to be," on a 15-point scale with six scale labels. Pilkonis (1976, 1977a, 1977b) found this item to be quite effective in discriminating individual differences in "chronic" shyness. The full introductory questionnaire may be found in Appendix B.

After subjects completed the questionnaire, they were given instruction sheets (see Appendix C) explaining the second phase of the study. The instructions given to the nonexperimental subject merely stated that the subjects would momentarily interact with one another for five minutes, afterwards completing questionnaires giving their impressions of each other. Subjects were admonished not to talk about the study in progress, but, otherwise, told that they could discuss whatever they wished. This prevented subjects from learning they were serving in different conditions of the design.

In addition to the above information, the instruction sheet given to experimental subjects explained that the present study was investigating a (fictitious) trait called

adaptive differentiation, that had purportedly been found to be an important determinant of the kinds of first impressions people make on each other. Experimental subjects were told that people who rank high in adaptive differentiation tend to be better liked, make more favorable impressions, are evaluated more positively by others, and so forth. The sheet also noted that the researchers expected people who are high in adaptive differentiation to be evaluated more positively and liked better by other subjects in the present study than those low in adaptive differentiation.

In addition, the instruction sheet introduced the image ambiguity manipulation. After being told that adaptive differentiation is associated with making good first impressions, subjects in the high ambiguity condition were simply told that further discussion of the trait would be withheld until the conclusion of the study. Subjects in the low ambiguity condition were told that people who are high in adaptive differentiation tend to be interested in other people, smile frequently, are optimistic, open-minded, and appear well-adjusted to others. These behaviors were selected as ostensibly associated with adaptive differentiation because (a) they are not uncommon ones for interacting strangers to perform so that subjects in the high ambiguity condition might be as likely to perform them as those in the low ambiguity condition, and (b) they are simple enough that most people could attempt to appear in such ways if they desired. Thus, subjects in the low ambiguity condition

believed that they had some idea of how to appear adaptively differentiated if they so desired, whether or not they actually ranked high in the trait.

After an appropriate delay, the experimenter returned to the experimental subject only and, explaining that most subjects are interested in how they performed on the initial questionnaire, he/she had quickly scored the subjects' responses. The experimenter then gave the subject a score-sheet (see Appendix D) ostensibly reflecting their scores on the questionnaire, but explained that he/she could not discuss the subjects' scores in detail until the conclusion of the study. These scoresheets contained the feedback manipulation.

For subjects in the high, average, and low feedback conditions, the scoresheets contained three scores, each expressed as a percentile. Two of the scores, labeled "thematicism" and "interpersonal acuity" were included merely as filler items and always showed the scores of 56 and 83, respectively. The third score on the sheets was labeled "adaptive differentiation," the same trait that subjects believed was associated with making favorable impressions upon others. Subjects in the high feedback condition received an adaptive differentiation score of 93%, those in the average feedback condition a score of 60%, and those in the low feedback condition a score of 23%. In addition, one-fourth of the subjects received no feedback regarding their

adaptive differentiation scores, although they received the other two filler scores (no feedback condition).

After experimental subjects had viewed their score-sheets, both subjects were brought together and told they would be allowed to interact for five minutes while the experimenter left the room. After reminding subjects that they would give their impressions of one another after the conversation, the experimenter started the tape recorder and left the room.

At the end of five minutes, the experimenter returned, placed the subjects in separate rooms again, and administered the questionnaires containing the dependent measures. For the experimental subject, this questionnaire (see Appendix E) asked how shy and relaxed the subject felt during the conversation, how good of an impression the subjects thought they had made on the other person, how hard subjects tried to appear adaptively differentiated, how concerned subjects had been with making a good impression on the other subject, how well subjects felt they were able to control the impressions the other subject formed of them, how shy they thought the other subject was, and how much they liked the other subject. Two additional items assessed the effectiveness of the manipulations. All questions were answered on 15-point scales.

The questionnaire for the nonexperimental subjects (see Appendix F) asked how shy they thought the other (i.e., experimental) subject was, how relaxed the other subject

appeared, how much they liked the other subject, how positive their overall impression of the other subject was, how comfortable they felt interacting with the other subject, and how much eye contact the other subject gave them during the conversation. All questions were answered on 15-point scales. In addition, they were asked to rate the experimental subjects on six 7-point bipolar adjective scales: optimistic/pessimistic, open-minded/close-minded, poorly adjusted/well adjusted, smiled a lot/did not smile at all, friendly/unfriendly, and interested in others/not interested in others. These adjectives tapped the characteristics that had been described to subjects in the low ambiguity condition as indicative of adaptively differentiated people in order to determine whether the content of the ambiguity manipulation systematically affected subjects' behavior.

After subjects completed their respective questionnaires, they were brought together and fully debriefed, with the major hypotheses and the necessity of all deceptions explained in detail.

The tapes of the subjects' conversations were coded by trained judges for four measures: (a) which subject broke the initial silence after the experimenter left the room, (b) the length of time each subject talked, (c) the number of questions each subject asked the other, and (d) the judges' ratings of how shy each subject sounded to them.

CHAPTER III

RESULTS

As described above, three kinds of data were collected regarding the experimental subjects: self-reports on the post-interaction questionnaire, ratings by nonexperimental subjects, and verbal responses coded from tapes of the five-minute conversations. Each of these will be discussed in turn. Unless otherwise indicated, reported analyses are for 2 (low/high FNE) X 2 (low/high ambiguity) X 4 (low/average/high/no feedback) unweighted-means analyses of variance.¹

Manipulation Checks and FNE Data

Ambiguity Manipulation

An analysis of variance performed on subjects' responses to the question, "How clear is it to you how people who are high in adaptive differentiation tend to act?" revealed only a main effect of image ambiguity, $F(1, 111) = 5.49$, $p < .02$. As hoped, subjects in the low ambiguity condition ($M = 9.9$) indicated that it was significantly more clear to them how adaptively differentiated people tend to act than subjects in the high ambiguity condition ($M = 8.5$), thus demonstrating the effectiveness of the ambiguity manipulation.

¹The number of subjects serving in each cell of the design may be found in Appendix G.

It should be noted, however, that even subjects in the low ambiguity condition indicated that it was only "moderately clear" to them how adaptively differentiated people tend to act, a reasonable response given what they had been told about the trait.

Feedback Manipulation

Subjects' responses to the feedback manipulation check, "How high would you rate yourself on adaptive differentiation?," revealed no effects of feedback, either alone or in interaction with other variables. The failure of the feedback manipulation to affect the manipulation check item is, of course, problematic.

There are a number of reasons why this may have occurred, in addition to the obvious possibility that the feedback manipulation itself did not work. First, it is possible that subjects may have interpreted the manipulation check as reading, "How high would you rate yourself on adaptive differentiation?," so that their responses to it reflected their own estimates of their level of adaptive differentiation, irrespective of the feedback they received. Even if this is the case, however, it indicates that subjects did not place enough stock in their adaptive differentiation scores to incorporate that information into their self-ratings of adaptive differentiation.

Alternatively, subjects in the low feedback condition may have dismissed their low adaptive differentiation scores as either bogus or inaccurate. However, no cases of

suspiciousness were observed, and subjects in the low feedback cell often appeared genuinely relieved when they later learned that their feedback scores were bogus, thus casting doubt upon this possibility.

A third possible explanation for the failure of the manipulation check is that, although experimental subjects initially accepted the feedback as veridical, subsequent interaction with the other subject, which was nearly always pleasant, may have convinced subjects in the low feedback condition that they had made a reasonably good impression after all, diminishing the effects of low feedback. Analysis of the item, "How good of an impression do you think you made on the other subject?," also revealed no effects of the feedback manipulation, indicating that there was no relationship between the bogus feedback subjects received and how they later perceived they came across during the interaction.

As will be seen, despite the failure of the manipulation check, effects of feedback (in interaction with other variables) were obtained on a number of items, particularly ratings by nonexperimental subjects and experimental subjects' verbal responses as coded from the tapes. Thus, although the manipulation was weak and had little effect on experimental subjects' self-reports, it seems to have been strong enough to have some type of effect on certain dependent measures.

Although no effects of feedback were obtained on the feedback manipulation check, a main effect of image ambiguity

was obtained on this item, $F(1, 111) = 6.26, p < .02$.

Examination of means shows that low ambiguity subjects ($M = 10.5$) rated themselves higher on adaptive differentiation than high ambiguity subjects ($M = 9.6$). What this indicates is that, without additional information regarding the nature of adaptive differentiation, subjects in the high ambiguity condition were more moderate or cautious in their self-ratings, whereas low ambiguity subjects, who knew how adaptively differentiated people tend to act, rated themselves higher on the trait. The implications of this main effect of ambiguity for the interpretation of other effects will become clear as we proceed.

In light of the uncertainty surrounding the success of the feedback manipulation in altering subjects' perceptions of their abilities to make favorable impressions, it seems that a useful secondary analysis would be to split subjects into groups in terms of their self-ratings of adaptive differentiation (as indicated on the manipulation check item) and analyze the relationship between the perception of one's standing on a trait ostensibly associated with making good impressions and the dependent measures. Although such an analysis precludes drawing causal interpretations of the data, it may serve to provide additional information about the relationship between the belief that one has the ability to come across well to others and shyness. Such an analysis will be discussed at several points below.

Fear of Negative Evaluation: Subject Data

Subjects' scores on the Fear of Negative Evaluation Scale spanned the entire possible range from 0 to 30, with a mean of 13.6, a standard deviation of 7.64, and a median of 16. This compares to Watson and Friend's (1969) norms of a mean of 15.5, standard deviation of 8.62, and median of 16. Kudar-Richardson '20 test of homogeneity revealed a reliability coefficient of .92, which is quite close to the KR-20 of .94 obtained by Watson and Friend.

A median split was performed on subjects' FNE scores (subjects falling on the median were classified with those below it) and subjects identified as either low ($n = 68$) or high ($n = 60$) in FNE. Subjects' standing on the FNE scale (low or high) was subsequently entered in the analyses below.

Experimental Subjects' Self-Reports

Self-Reports of Shyness and Relaxation

It was predicted that subjects' self-reports of shyness and relaxation would vary as a function of feedback, image ambiguity, and FNE. Analysis of subjects' responses to the item, "How shy did you feel during the conversation?," showed only the predicted main effect of FNE, although it failed to reach a conventional level of significance, $F(1, 112) = 2.92, p < .09$.¹ (The product-moment correlation

¹As a rule of thumb, alpha was set at the conventional level of .05. However, results with an obtained significance of $p < .10$ will be reported if they involve predicted effects.

between subjects' FNE scores and self-reported shyness was $+.28, p < .001$.¹) Contrary to predictions, no other effects of the independent variables were obtained on this item.

Subjects were also asked, "How relaxed did you feel during the conversation?" It should be noted that shyness and relaxation should not be regarded as purely opposite experiences. Although all shy people should generally report feeling less relaxed, a failure to feel relaxed in an encounter may arise for reasons unrelated to shyness; one may be interacting with an overbearing braggart, for example. Thus, one would expect a moderate correlation between self-reports of shyness and relaxation, which is the case, $r = -.59, p < .001$.

A three-way ANOVA performed on the relaxation item revealed main effects of image ambiguity, $F(1, 112) = 3.48, p < .06$, and FNE, $F(1, 112) = 4.56, p < .04$, and an ambiguity X FNE interaction, $F(1, 112) = 3.45, p < .06$. Inspection of means shows that, as predicted, low ambiguity subjects ($M = 11.6$) felt more relaxed than high ambiguity subjects ($M = 10.7$), and low FNE subjects felt more relaxed than highs (M 's = 11.6 and 10.7 for low and high FNE's, respectively). The correlation between FNE and self-reported relaxation was $-.27, p < .01$.

Examination of cell means for the interaction (see Table 1) shows that both main effects are pulled primarily

¹All reported r 's are pooled within-cell correlations.

Table 1
 Self-Reports of Relaxation
 as a Function of Ambiguity and FNE

Ambiguity	Fear of Negative Evaluation	
	Low	High
Low	11.6	11.5 _a
High	11.6 _b	9.9 _{ab}

Note. Means sharing a common subscript differ by $p < .05$ (tests of simple effects).

high FNE's under conditions of high ambiguity, who felt significantly less relaxed than either low FNE subjects in the high ambiguity condition and high FNE subjects in the low ambiguity cell, p 's $< .05$, by tests of simple effects. Put another way, low FNE subjects, who were not particularly concerned with others' evaluations anyway, appeared not to be bothered when they were unsure of how to behave to make the most favorable impression, whereas high FNE's became more uptight under conditions of high ambiguity.

Given the failure of the feedback manipulation to produce significant effects on the manipulation check item, it was decided to trichotomize subjects in terms of their responses on the manipulation check ("How high would you rate yourself on adaptive differentiation?"). Thus, three groups were created that differed in their self-ratings of adaptive differentiation, the trait that was ostensibly associated with making good impressions on others. The means for the three groups on the manipulation check were 7.6, 10.4, and 12.8 for the low, medium, and high self-ratings of adaptive differentiation groups, respectively.

If it can be shown that self-reported shyness and relaxation vary as a function of perceived possession of a trait supposedly associated with making favorable impressions, we will have some basis for inferring the proposed relationship between self-presentational concerns and social anxiety. Of course, it is important to emphasize that, since one's perceptions of one's own attributes may themselves be affected

by numerous other variables that may themselves be associated with shyness, we will have no basis for concluding that the belief that one ranks low on the ability to come across well to others causes shyness or decreased relaxation. Nevertheless, we may conclude that self-evaluations regarding the ability to make favorable impressions from whatever source--situational manipulations, low self-esteem, veridical self-perceptions, etc.--are associated with social anxiety.

A three-way ANOVA employing self-ratings of adaptive differentiation, image ambiguity, and FNE as factors was performed on subjects' self-reports of shyness and relaxation. (It should be noted that self-ratings of adaptive differentiation were not correlated with FNE scores, $r = -.15$, $p > .05$, so that the two individual difference factors may be regarded as independent.) This analysis performed on the shyness measure revealed a significant main effect of adaptive differentiation self-rating, $F(2, 116) = 4.05$, $p < .02$, and a marginally significant main effect of FNE, $F(1, 116) = 3.18$, $p < .08$. Examination of the self-rating main effect shows that, in support of the model, self-ratings of adaptive differentiation were negatively related to self-reported shyness. Subjects who rated themselves highest on adaptive differentiation indicated they felt significantly less shy ($M = 3.0$) than those rating themselves lowest on adaptive differentiation ($M = 4.8$), $p < .05$ by Duncan's test, with those rating themselves in the middle on adaptive differentiation falling midway ($M = 4.1$)

and not differing significantly from the high and low cells. (The correlation between self-ratings of adaptive differentiation and shyness was $-.24$, $p < .01$.) As before, the marginally significant main effect of FNE showed that high FNE's reported feeling more shy than lows.

Symmetrical effects were obtained on a similar analysis of the relaxation item. A main effect of adaptive differentiation self-rating, $F(2, 116) = 3.90$, $p < .03$, revealed that self-reported relaxation in the encounter was significantly greater for subjects rating themselves highest ($M = 12.2$) or moderate ($M = 11.6$) in adaptive differentiation than those rating themselves lowest on adaptive differentiation ($M = 10.3$), $p's < .05$. (The correlation between self-ratings of adaptive differentiation and self-reported relaxation was $+.32$, $p < .001$.) A significant main effect of FNE, $F(1, 116) = 4.58$, $p < .04$, again showed that low FNE subjects reported being more relaxed than highs.

It may be observed that, when self-ratings of adaptive differentiation are substituted for feedback as a factor in the analysis of the relaxation item, the previously obtained marginally significant main effect of ambiguity and the ambiguity X FNE interaction disappear. This is related to the fact that, as mentioned earlier, a main effect of ambiguity was obtained on the feedback manipulation check. What this shows is that subjects' self-ratings of adaptive differentiation were partially a function of their ambiguity condition designation. In fact, the correlation

between subjects' self-reports of adaptive differentiation and ratings of how clear it was how adaptively differentiated people tend to act was $+ .38$, $p < .001$. Thus, when self-ratings of adaptive differentiation are added as a factor in the ANOVA, this variable accounts for variance originally attributable to image ambiguity. This does not appear to detract from the ambiguity and ambiguity X FNE effects obtained earlier, but merely suggests that one variable that affected subjects' self-ratings of adaptive differentiation was image ambiguity.

In short, subjects' self-reports of shyness and relaxation were found to vary as a function of their self-ratings on a fictional trait they believed was associated with making favorable impressions. Although these effects are correlational in nature, they are clearly in line with the hypotheses.

Additional correlational data also support the hypothesis that self-reported shyness and relaxation are associated with one's self-presentational concerns. The items shown in Table 2 demonstrate significant, although sometimes minimal, correlations--all in the appropriate direction--between the four measures of self-presentational concern/security obtained in the study and self-reports of shyness and relaxation. It should be observed that only the first item in Table 2 correlates significantly with subjects' self-ratings of chronic shyness. This suggests that the latter three relationships shown in the Table are not

Table 2

Correlations of Items with Self-Reported Shyness and Relaxation

Item	Shyness ^a	Relaxation ^b	Chronic Shyness ^c
How good of an impression do you think you made on the other subject?	-.36**	+.42**	-.27**
How concerned were you with making a good impression on the other subject...?	+.17*	+.01	+.04
How hard did you try to appear adaptively differentiated...?	+.18*	-.08	+.10
To what degree do you feel you were able to control the impressions the other subject formed of you?	-.12	+.21*	-.09

Note. ^aHow shy did you feel during the conversation?

^bHow relaxed did you feel during the conversation?

^cIn general, how shy of a person do you consider yourself to be?

** $p < .001$

* $p < .05$

mediated by subjects' general level of shyness or self-presentational concern, but are specific to shyness in this particular encounter.

Motivation to Make a Favorable Impression and Perceived

Success of Doing So

In order to assess the effect of the independent variables upon subjects' attempts to come across well to the other subject, experimental subjects were asked (a) "How concerned were you with making a good impression on the other subject during the conversation?," and (b) "How hard did you try to appear adaptively differentiated to the other subject?"

As would be expected, a main effect of FNE was obtained on both items. High Fear of Negative Evaluation subjects indicated that they were more concerned with making a good impression, $F(1, 112) = 7.66, p < .01$ (means were 8.7 and 6.7 for high and low FNE's, respectively), and tried harder to appear adaptively differentiated than lows, $F(1, 112) = 11.32, p < .001$ (means were 8.2 and 5.9 for highs and lows, respectively). The correlations between FNE and the two items were: $+.25$ (concerned with making a good impression) and $+.31$ (trying to appear adaptively differentiated), p 's $< .01$.

In addition, an ambiguity X FNE interaction was obtained on the latter item, $F(1, 112) = 6.91, p < .01$. As can be seen in Table 3, low and high FNE subjects tried equally hard to appear adaptively differentiated when

Table 3

Subjects' Attempts to Appear Adaptively Differentiated
as a Function of Ambiguity and FNE

Ambiguity	Fear of Negative Evaluation	
	Low	High
Low	5.4 _a	9.5 _{ab}
High	6.4	6.9 _b

Note. Means sharing a common subscript differ by $p < .05$.

Table 4

Subjects' Self-Reported Ability to Control Impressions
as a Function of Ambiguity and FNE

Ambiguity	Fear of Negative Evaluation	
	Low	High
Low	7.8	9.1 _a
High	8.9	7.6 _a

Note. Means sharing a common subscript differ by $p < .05$.

ambiguity was high, but high FNE's tried significantly harder to appear adaptively differentiated than lows when ambiguity was low, $p < .05$ by tests of simple effects. Also, high FNE's tried harder to appear adaptively differentiated when ambiguity was low rather than high, $p < .05$, whereas low FNE's attempts to appear adaptively differentiated did not differ as a function of the ambiguity manipulation, $p > .05$.

Interestingly, an ambiguity X FNE interaction was also obtained on responses to the item, "To what degree did you feel you were able to control the impressions the other subject formed of you?," $F(1, 111) = 4.39$, $p < .04$. Inspection of cell means (see Table 4) shows that, while high FNE's felt significantly better able to control their impressions when image ambiguity was low rather than high, $p < .05$, no difference was obtained between low and high ambiguity conditions for low FNE's, $p > .05$.

These findings raise a noteworthy point. Information regarding the nature of the image likely to result in favorable reactions from others (i.e., low image ambiguity) is of no help in attaining those reactions unless the individual attempts to use it. High FNE subjects, who were more motivated to secure a favorable evaluation from the other subject, tried harder to appear adaptively differentiated, felt better able to control their impressions, and felt as relaxed as low FNE's when image ambiguity was low. Thus, although their greater concern over evaluation would seem to predispose high FNE's to become more socially anxious

than lows, it also motivates them to manage their impressions in ways that reduce their self-presentational concerns. Only when the nature of the valued image is ambiguous do high FNE's appear to become more anxious than lows.

When subjects are divided into three groups on the basis of their adaptive differentiation self-ratings, a main effect of self-rating is obtained on the above item (i.e., "To what degree did you feel you were able to control the impressions the other subject formed of you?"), $F(2, 115) = 3.26$, $p < .05$. Inspection of means shows that subjects who rated themselves highest ($M = 9.3$) or medium ($M = 9.0$) on adaptive differentiation indicated they felt significantly better able to control the impressions the other subject formed of them than subjects who rated themselves lowest on adaptive differentiation ($M = 7.4$), $p's < .05$ by Duncan's test. It makes good sense that people who think they possess a trait associated with the ability to make good impressions would perceive they were better able to control their impressions than people who rate themselves low on such a trait.

Ratings of the Other Subject

No effects of the independent variables, either alone or in combination, were obtained on responses to the items, "How shy do you think the other (i.e., nonexperimental) subject is?" and "How much did you like the other subject?" all $p's > .05$. However, when subjects are split

into three groups on the basis of their adaptive differentiation self-ratings, a main effect of self-rating is obtained on the liking item, $F(2, 116) = 4.10$, $p < .02$. Subjects rating themselves highest in adaptive differentiation ($M = 12.1$) liked the other subject more than subjects rating themselves lowest on adaptive differentiation ($M = 10.6$), $p < .05$, with those rating themselves in the middle falling in between ($M = 11.7$).

Interestingly, ratings of how shy the other subject appeared correlated with both self-ratings of chronic shyness, $r = +.29$, and with self-ratings of shyness during the conversation, $r = +.40$, $p's < .001$. Thus, there seems to be a degree of egocentrism in people's judgements of how shy others are: there is a tendency to assume others are like oneself.

Ratings by Nonexperimental Subjects

Following the five-minute conversation, nonexperimental subjects answered six questions about the experimental subjects and rated them on six 7-point bipolar adjective scales (see Appendix F for questionnaire).

Ratings of Shyness and Relaxation

Table 5 shows the correlations between nonexperimental subjects' ratings of how shy and relaxed experimental subjects appeared to be and experimental subjects' self-reports of shyness and relaxation. As can be seen, there is no relationship between shyness ratings by the nonexperimental subjects and experimental subjects' self-reports of shyness,

Table 5

Correlations Between Self-Reports and Others' Ratings
of Shyness and Relaxation

Nonexperimental Subjects' Ratings of Experimental Subjects	Experimental Subjects' Self-Reports		
	Shyness During Conversation	Relaxation During Conversation	Chronic Shyness
Shyness	+ .05	- .29**	+ .09
Relaxation	- .17*	+ .29**	- .08

Note. ** $p < .01$
* $p < .05$

and only minimal correspondence between ratings and self-reports of relaxation. Overall, nonexperimental subjects ($\bar{M} = 6.00$) overestimated how shy experimental subjects were ($\bar{M} = 4.05$), $t(127) = -5.70$, $p < .05$, and underestimated how relaxed they were (\bar{M} 's = 11.3 and 10.4 for experimental and nonexperimental subjects, respectively), $t(127) = 3.00$, $p < .05$. In short, there is only minimal correspondence between experimental subjects' self-reports and nonexperimental subjects' ratings of them.

A main effect of ambiguity, $F(1, 112) = 4.27$, $p < .04$, and a marginally significant main effect of feedback, $F(3, 112) = 2.54$, $p < .06$, were obtained on nonexperimental subjects' ratings of how shy they thought the experimental subject was. The patterns of means for both of these effects were contrary to predictions. First, nonexperimental subjects rated experimental subjects as more shy in the low ambiguity ($\bar{M} = 6.6$) than in the high ambiguity condition ($\bar{M} = 5.5$). (It will be remembered that experimental subjects reported that they were more relaxed in the low than high ambiguity condition.) It is possible that subjects in the low ambiguity condition, who may have been monitoring their behavior more closely in order to appear adaptively differentiated, appeared more tenuous and awkward, although they felt more relaxed since they perceived that they had a degree of control over the impressions the other was forming of them.

The pattern of means for the marginally significant main effect of feedback were also puzzling: experimental subjects in the high and no feedback condition were judged to be most shy (\bar{M} 's = 6.8 and 6.7, respectively), those receiving low feedback were judged as being least shy (\bar{M} = 5.1), and those receiving average feedback were rated in between (\bar{M} = 5.5). Possible explanations for this effect will be discussed in detail below.

Analysis of nonexperimental subjects' responses to the item, "How relaxed would you say the other subject was during the conversation?," revealed only a marginally significant feedback X FNE interaction, $F(3, 112) = 2.52$, $p < .06$. The means for this effect are shown in Table 6. Tests of simple effects reveal a significant simple main effect of feedback for low FNE subjects, $p < .05$. Subsequent multiple comparisons showed that low FNE subjects were judged to be significantly less relaxed after they had received low feedback than either average or no feedback, p 's $< .05$, with the high feedback condition not differing significantly from the others. Thus, low feedback regarding adaptive differentiation was associated with reduced relaxation, although only for low FNE's. Why a similar effect was not obtained for high FNE subjects is not clear.

No effects of self-ratings of adaptive differentiation were obtained on nonexperimental subjects' ratings of shyness or relaxation when experimental subjects were trichotomized according to their self-ratings and that factor entered into the analysis.

Table 6

Nonexperimental Subjects' Ratings of How Relaxed
the Experimental Subject was as a Function of
Feedback and FNE.

Fear of Negative Evaluation	Feedback			
	Low	Average	High	None
Low	8.9 _{ab}	11.4 _a	9.8	11.5 _b
High	10.6	10.5	10.1	9.6

Note. Means sharing a common subscript differ by $p < .05$.

Evaluations of the Experimental Subjects

Nonexperimental subjects' evaluations of the experimental subjects were examined as a function of feedback, image ambiguity, and FNE, although no hypotheses were advanced regarding their effects.

A three-way interaction of feedback X ambiguity X FNE was obtained on responses to the items: (a) "How much did you like the other subject?," $F(3, 112) = 2.51, p < .06$, and (b) "What was your overall impression of the other subject?," $F(3, 112) = 2.61, p < .05$. Because these two items are correlated ($r = +.57, p < .0001$), they will be discussed together.

Examining the "liking" item first (see Table 7), tests of simple effects revealed that low FNE subjects in the high feedback/low ambiguity condition were liked less than (a) other low FNE subjects under conditions of low ambiguity, (b) low FNE subjects in the high feedback/high ambiguity condition, and (c) high FNE's in the high feedback/low ambiguity condition, p 's $< .05$.

Inspection of means for the "overall impression" item (see Table 8) reveals a strikingly similar pattern. Again, low FNE's in the high feedback/low ambiguity condition were evaluated least positively, significantly less so than (a) low FNE's in the low ambiguity condition who received low or average feedback, (b) low FNE's in the high feedback/high ambiguity condition, and (c) high FNE's in the high feedback/low ambiguity cell, p 's $< .05$.

Table 7

Nonexperimental Subjects' Ratings of How Well
They Liked the Experimental Subject
as a Function of Feedback, Ambiguity, and FNE

Low Fear of Negative Evaluation				
Ambiguity	Feedback			
	Low	Average	High	No
Low	11.4 _a	11.9 _b	9.4 _{abcde}	11.7 _c
High	10.7	11.4	11.3 _d	10.3
High Fear of Negative Evaluation				
Ambiguity	Feedback			
	Low	Average	High	No
Low	11.9	12.0	12.1 _e	10.8
High	11.1	12.4	11.0	11.9

Note. Means sharing a common subscript differ by $p < .05$. The following two-way simple interactions were significant by $p < .05$: feedback X ambiguity within low FNE, ambiguity X FNE within high feedback.

Table 8
 Nonexperimental Subjects' Impressions of
 Experimental Subjects as a Function of
 Feedback, Ambiguity, and FNE

Low Fear of Negative Evaluation				
Ambiguity	Feedback			
	Low	Average	High	No
Low	12.2 _a	13.0 _b	9.6 _{abcd}	12.0
High	11.3	11.3	11.8 _c	12.1
High Fear of Negative Evaluation				
Ambiguity	Feedback			
	Low	Average	High	No
Low	12.3	12.4	12.6 _d	10.8
High	12.0	12.6	11.5	11.1

Note. Means sharing a common subscript differ by $p < .05$. The following two-way simple interactions were significant by $p < .05$: feedback X ambiguity within low FNE, ambiguity X FNE within high feedback, feedback X FNE within low ambiguity.

Thus, experimental subjects in the single cell that was predicted to result in the least shyness were liked least and made the worst overall impression. It seems possible that low Fear of Negative Evaluation subjects, relatively unconcerned with the other's evaluation, made little attempt to get the other to like them when they already believed they had the attributes necessary to make a favorable impression and knew how to act in order to make one.¹

Interestingly, however, there was no correlation between nonexperimental subjects' evaluations of the experimental subject, either in terms of liking or overall impression, and experimental subjects' ratings of how good of an impression they thought they had made on the nonexperimental subject, r 's $< .10$, p 's $> .05$. It seems that people may not be particularly good at judging how well they come across to strangers in an initial conversation.

To assess the effect of the experimental subjects' experimental condition upon nonexperimental subjects' reactions to the encounter, nonexperimental subjects were asked, "How comfortable did you feel during your conversation with the other subject?" This item revealed a significant feedback X FNE interaction, $F(3, 112) = 3.06$, $p < .03$. Tests of simple effects (see Table 9) showed that nonexperimental subjects felt significantly less comfortable interacting with

¹No effects of subjects' self-ratings of adaptive differentiation were obtained on either the liking or overall impression items.

Table 9

Nonexperimental Subjects' Ratings of How Comfortable They
Felt During the Interaction as a Function of
Feedback and FNE

FNE	Feedback			
	Low	Average	High	No
Low	11.9 _a	10.1	9.5 _{abc}	11.7 _b
High	10.7	11.9	11.7 _c	10.4

Note. Means sharing a common subscript differ by $p < .05$.

low FNE subjects in the high feedback than in the low or no feedback conditions, or high FNE subjects in the high feedback condition, p 's $< .05$. Although the effect was not qualified by image ambiguity, it bears some resemblance to the personal evaluation items just discussed. Low FNE subjects who received high feedback appear to have been behaving in a way that produced adverse reactions in nonexperimental subjects.

Nonexperimental subjects' ratings of comfort in the encounter were then analyzed as a function of experimental subjects' self-ratings of adaptive differentiation, image ambiguity, and FNE, revealing a significant three-way interaction, $F(2, 116) = 7.96$, $p < .001$. (See Table 10.) Low FNE subjects rating themselves high on adaptive differentiation and serving in the low ambiguity cell made nonexperimental subjects feel significantly less comfortable than (a) low FNE's rating themselves high on adaptive differentiation, but serving in the high ambiguity cell and (b) high FNE's in the high self-rating/low ambiguity condition, p 's $< .05$. In addition, nonexperimental subjects felt less comfortable when interacting with high FNE subjects in the high self-rating/high ambiguity condition than with (a) low FNE's in the high self-rating/high ambiguity cell, (b) high FNE's in the high self-rating/low ambiguity condition, and (c) high FNE's in the high ambiguity condition who rated themselves either low or medium on adaptive differentiation, p 's $< .05$. The tendency for low FNE subjects in the low

Table 10

Nonexperimental Subjects' Ratings of How Comfortable They
Felt During the Interaction as a Function of
Self-Rating of Adaptive Differentiation,
Ambiguity and FNE

Low Fear of Negative Evaluation			
Self-Rating of Adaptive Differentiation			
Ambiguity	Low	Medium	High
Low	10.9	11.7	9.4 _{ab}
High	11.1	10.0	11.9 _{ac}
High Fear of Negative Evaluation			
Self-Rating of Adaptive Differentiation			
Ambiguity	Low	Medium	High
Low	11.3	10.5	12.8 _{bd}
High	11.0 _e	11.3 _f	6.7 _{cdef}

Note. Means sharing a common subscript differ by $p < .05$. The following two-way simple interactions were significant by $p < .05$: ambiguity X FNE within high self-rating, FNE X self-rating within high ambiguity, ambiguity X self-rating within high FNE.

ambiguity condition who rated themselves high on adaptive differentiation to make nonexperimental subjects feel less comfortable parallels previous effects in which subjects who presumably were in the "optimal" self-presentational condition had adverse effects on nonexperimental subjects. The finding that high FNE's who rated themselves high on adaptive differentiation under conditions of high ambiguity had an even stronger effect in that regard is more puzzling.

Miscellaneous Ratings

A three-way ANOVA performed on the item, "How much eye contact did the other subject give you during the conversation?" revealed a significant ambiguity X FNE interaction, $F(1, 112) = 4.12$, $p < .05$ (see Table 11). Tests of simple effects showed that, under conditions of low ambiguity, high FNE subjects were judged to have engaged in more eye contact than low FNE's, $p < .05$. However, low and high FNE's did not differ in judged eye contact in the high ambiguity condition, $p > .05$. Also, low FNE's engaged in somewhat more eye contact when ambiguity was high rather than low, $p < .07$, while high FNE's showed a nonsignificant trend in the opposite direction.

It will be recalled that subjects in the low ambiguity condition had been given information regarding how adaptively differentiated people supposedly tend to act: "people who rank high in adaptive differentiation tend to be interested in other people, smile frequently, are optimistic, are open-minded, and appear well-adjusted to others." To

Table 11

Nonexperimental Subjects' Ratings of How Much
 Eye Contact Experimental Subjects Gave Them
 as a Function of Ambiguity and FNE

Ambiguity	Fear of Negative Evaluation	
	Low	High
Low	8.9 _a	10.5 _a
High	10.3	9.5

Note. Means sharing a common subscript differ by $p < .05$.

determine whether such information actually led low ambiguity subjects to act in such ways, and thus differently than subjects in the high ambiguity condition, nonexperimental subjects were asked to rate them on six 7-point bipolar adjective scales that tapped the characteristics described as indicative of adaptively differentiated people: optimistic/pessimistic, open-minded/close-minded, poorly adjusted/well adjusted, smiled a lot/did not smile at all, friendly/unfriendly, and interested in others/not interested in others. A multivariate analysis of variance performed on the six scales revealed no effects of any independent variables, including image ambiguity, p 's $> .10$. Thus, as hoped, nonexperimental subjects did not detect differences in the behavior of experimental subjects that could be directly attributable to the content of the information given to low ambiguity subjects. Thus, it may be assumed that obtained differences in the ratings or behaviors of low versus high ambiguity subjects are not due to specific differences in their interpersonal behaviors as affected by lows' knowledge of how adaptively differentiated people tend to act.

Observational Data

Trained raters listened to the tapes of the five-minute conversations between subjects and coded four pieces of information from each: (a) which subject in each session broke the initial silence after the experimenter had left the room and closed the door, (b) how long each subject

talked during the five minutes, (c) how many questions each subject asked the other, and (d) an overall estimation of how shy the raters thought the subjects "sounded," rated on a 7-point scale. Ratings were available for only 126 of the 128 sessions. One session was lost due to an experimenter's failure to record it, and another was excluded from the analysis because of one subject's obvious attempt to sabotage the recording.

Interrater reliabilities were computed for each of the ratings across 40 randomly selected subjects. Raters worked in pairs for these coding sessions, both raters recording the data for each of the 40 subjects. Each of the four measures demonstrated an acceptable degree of reliability: (a) which subject initiated the conversation, 1.00; (b) time spent talking, .94; (c) number of questions asked, .93; and (d) ratings of perceived subject shyness, .74.

Initiation of Conversation

No effects of the independent variables were obtained on chi-square analyses of whether or not the experimental subject initiated the conversation after the experimenter had left the room.

Time Spent Talking

A three-way ANOVA performed on the number of seconds that experimental subjects talked during the conversation revealed only a main effect of FNE, $F(1, 110) = 4.62$, $p < .04$. As might be expected, low FNE subjects ($M = 133.5$

seconds) spoke longer than high FNE subjects ($M = 117.0$ seconds). The correlation between FNE and time spent talking was $-.25$, $p < .01$.

Because there was great variability in the total length of time subjects in a given session conversed (i.e., subjects in some sessions sat quietly for long portions of the five minute period), it was decided to examine the proportion of time each subject spoke, relative to the total length of the conversation. Thus, each subject's speaking time was divided by the total time that both subjects talked in a given session, and this proportion submitted to a three-way ANOVA. In addition to the main effect of FNE obtained above, $F(1, 110) = 3.96$, $p < .05$, this analysis revealed a significant feedback X ambiguity X FNE interaction, $F(3, 110) = 2.65$, $p < .05$. (As before, low FNE's spoke relatively more of the time than high FNE's--55% versus 49% respectively.)

The proportions for the three-way interaction are shown in Table 12. Under conditions of low image ambiguity, low FNE subjects talked proportionally longer when feedback was high than average, or when they received no feedback at all, $p's < .05$. Low FNE subjects in the low feedback/low ambiguity condition fell midway and did not differ from the other cells. Also, after receiving high feedback regarding their adaptive differentiation, low FNE subjects in the low ambiguity condition talked more than low FNE's under high ambiguity, and more than high FNE's in the high feedback/

Table 12

Proportion of Time Experimental Subjects Spoke as
a Function of Feedback, Ambiguity, and FNE

Low Fear of Negative Evaluation				
Ambiguity	Feedback			
	Low	Average	High	No
Low	.60	.50 _a	.68 _{abcd}	.50 _b
High	.54	.61	.46 _c	.50
High Fear of Negative Evaluation				
Ambiguity	Feedback			
	Low	Average	High	No
Low	.48	.57	.46 _d	.43
High	.48	.50	.51	.55

Note. Proportions sharing a common subscript differ by $p < .05$. The following two-way simple interactions were significant by $p < .05$: feedback X ambiguity within low FNE, ambiguity X FNE within high feedback, feedback X FNE within low ambiguity.

low ambiguity cell, p 's $< .05$. Thus, the greatest amount of talking, proportional to the total length of the conversation, occurred among low FNE subjects in the high feedback/low ambiguity condition--those subjects in the optimal condition from a self-presentational perspective, as predicted. (These were also the subjects evaluated least positively by nonexperimental subjects, a point to be discussed below.) However, there was no simple interaction of feedback X ambiguity for high FNE's that showed decreased talking in the low feedback/high ambiguity cell, as was expected.

Subjects were then classified as low, medium, or high on their self-ratings of adaptive differentiation, and their time spent talking examined as a function of self-ratings, ambiguity, and FNE. A self-rating of adaptive differentiation X FNE interaction was obtained on the raw number of seconds experimental subjects spoke, $F(2, 114) = 3.37$, $p < .04$, and on the proportion of time that subjects talked, relative to the length of the conversation, $F(2, 114) = 4.16$, $p < .02$. The means and proportions for these two effects are presented together in Table 13.

Tests of simple effects, followed by multiple comparisons for simple main effects, on the two items revealed the same pattern of results. First, high FNE's talked more than low FNE's when they thought they were high in adaptive differentiation, but less when they thought they were medium or low in adaptive differentiation, p 's $< .05$. Also, low

Table 13

Time Spent Talking as a Function of Self-Ratings of
Adaptive Differentiation and FNE

FNE	Self-Rating of Adaptive Differentiation		
	Low	Medium	High
Low	133.6 (.55) _a	142.9 (.59) _{bd}	121.1 (.47) _{cd}
High	110.4 (.47) _{ae}	118.3 (.51) _b	145.6 (.59) _{ce}

Note. Numbers in parentheses refer to proportion of time subjects talked, relative to total length of conversation. Means sharing a common subscript differ by $p < .05$.

FNE's who rated themselves medium in adaptive differentiation talked more than those who rated themselves high, and high FNE's talked more when they rated themselves high than low, p 's $< .05$. Thus, when proportion of time spent talking is examined as a function of self-ratings of adaptive differentiation, the expected pattern is obtained for high FNE's, who demonstrated increased talking with higher self-ratings. Low FNE's showed a different pattern in which subjects rating themselves medium on adaptive differentiation talked more than those rating themselves high. As will be discussed below, low Fear of Negative Evaluation people may interact with others most fully under moderate levels of self-presentational concern.

Number of Questions Asked

An analysis of variance performed on the number of questions asked by experimental subjects revealed a two-way interaction of ambiguity X FNE, $F(1, 110) = 4.17$, $p < .05$, and a three-way interaction of feedback X ambiguity X FNE, $F(3, 110) = 3.22$, $p < .03$. Examining the two-way effect first (see Table 14), it can be seen that, whereas low FNE's asked more questions than highs under conditions of high ambiguity, $p < .05$, high and low FNE subjects did not differ significantly when image ambiguity was low, $p > .05$. Looking at the effects the other way, increasing ambiguity nonsignificantly increased the number of questions asked by low FNE's, $p < .10$, but significantly decreased the number

Table 14
 Number of Questions Asked as a Function of
 Ambiguity and FNE

Ambiguity	Fear of Negative Evaluation	
	Low	High
Low	7.5	7.9 _b
High	8.6 _a	6.3 _{ab}

Note. Means sharing a common subscript differ by $p < .05$.

of questions asked by high FNE subjects, $p < .05$. This suggests that image ambiguity may have different interpersonal consequences depending upon the degree to which the individual is characteristically concerned with how he or she appears to others.

Decomposition of the three-way interaction via tests of simple effects (see Table 15) reveals that, under average feedback conditions, low FNE subjects asked significantly more questions when ambiguity was high rather than low, and more questions when ambiguity was high than did high FNE's in the average feedback/high ambiguity condition, p 's $< .05$. This effect remains difficult to interpret.

When the number of questions subjects asked was examined as a function of self-ratings of adaptive differentiation, a self-rating X FNE interaction was obtained, $F(2, 114) = 3.37$, $p < .04$. As can be seen in Table 16, high FNE subjects who rated themselves lowest in adaptive differentiation asked significantly less questions than either high FNE's who rated themselves medium, or low FNE's who rated themselves low, p 's $< .05$.

Raters' Judgments of Shyness

After coding the behaviors above from the tape of each session, the raters responded to the item, "How shy did this subject sound to you?," on a 7-point scale. This rating was done blind (i.e., without knowledge of the subjects' condition) and independently for each rater. The interrater reliability of .74 indicates that the raters were in moderate

Table 15
 Number of Questions Asked as a Function of
 Feedback, Ambiguity, and FNE

Low Fear of Negative Evaluation				
Ambiguity	Feedback			
	Low	Average	High	No
Low	9.5	5.5 _a	7.0	7.9
High	7.4	10.9 _{ab}	8.2	7.8
High Fear of Negative Evaluation				
Ambiguity	Feedback			
	Low	Average	High	No
Low	8.7	7.5	8.8	6.8
High	6.7	4.0 _b	6.0	8.5

Note. Means sharing a common subscript differ by $p < .05$. The following two-way simple interactions were significant by $p < .05$: feedback X ambiguity within low FNE, ambiguity X FNE within average feedback, feedback X FNE within high ambiguity.

Table 16
 Number of Questions Asked as a Function of
 Self-Rating of Adaptive Differentiation and FNE

FNE	Self-Rating of Adaptive Differentiation		
	Low	Medium	High
Low	9.5 _a	8.3	7.3
High	6.3 _{ab}	9.0 _b	6.8

Note. Means sharing a common subscript differ by $p < .05$.

agreement regarding how shy the subjects sounded. The correlations between raters' judgments of shyness and other indices of shyness and self-presentational concern obtained in the study are presented in Table 17. As can be seen, there are consistent relationships in the expected direction between ratings made from analysis of verbal behaviors alone and other measures obtained both from the experimental and nonexperimental subjects.

It is interesting to note that, although judges' ratings of the experimental subjects' shyness were correlated both with experimental subjects' self-reports of shyness and nonexperimental subjects' ratings, nonexperimental subjects' ratings did not correlate with experimental subjects' self-reports, as mentioned earlier (see Table 5). It is also interesting to note that judges listening only to audio tapes of the interactions were better at estimating experimental subjects' subjective shyness than were nonexperimental subjects who interacted with them face-to-face. This may be because nonexperimental subjects were distracted by their own interpersonal concerns during the conversation.

A main effect of feedback, $F(3, 110) = 3.06$, $p < .03$, and a feedback X ambiguity interaction, $F(3, 110) = 2.96$, $p < .04$, were obtained on the judges' shyness ratings of the experimental subjects. Contrary to predictions, but consistent with nonexperimental subjects' shyness ratings, judges rated subjects in the high ($M = 3.9$) and no feedback ($M = 4.2$) conditions as sounding significantly more shy than

Table 17
Correlations Between Judges' Ratings of Shyness
and Other Measures

From Experimental Subjects:

How shy did you feel...?	+.24***
How relaxed did you feel...?	-.30***
In general, how shy of a person do you consider yourself to be?	+.18*
How good of an impression do you think you made...?	-.18*
Fear of Negative Evaluation	+.17*

From Nonexperimental Subjects:

How shy do you think the other subject is?	+.22**
How relaxed would you say the other subject was...?	-.19**

Note. *** $p < .001$
 ** $p < .01$
 * $p < .05$

subjects in the low feedback condition ($\bar{M} = 3.3$), $p's < .05$ by Duncan's test. The average feedback condition ($\bar{M} = 3.6$) fell in between and did not differ significantly from the others. This pattern is identical to the shyness ratings made by the nonexperimental subjects. Although it is difficult to ascertain precisely what led both naive subjects and trained observers to draw the same inference regarding how shy experimental subjects were, we may at least conclude that experimental subjects in the high feedback condition were doing something that made them appear and sound shy.

Examination of means for the feedback X ambiguity interaction (see Table 18) reveals that subjects in the low feedback/low ambiguity cell were judged as sounding least shy, significantly less so than low ambiguity subjects under every other level of feedback, $p's < .05$, and less than low feedback subjects in the high ambiguity condition, $p < .05$. Thus, the low shyness ratings among low feedback subjects was confined to the low ambiguity condition.

No effects of adaptive differentiation self-rating were obtained on judges' shyness ratings.

The Nonexperimental Subjects' Behavior

In order to examine the effects of the experimental subjects' experimental condition upon the verbal behavior of nonexperimental subjects, the latter's verbal responses were analyzed as a function of the experimental subjects' cell designation. A significant feedback X ambiguity X FNE interaction, $F(3, 110) = 2.96$, $p < .04$, and a significant

Table 18
 Raters' Judgments of Shyness as a Function
 of Feedback and Ambiguity

Ambiguity	Feedback			
	Low	Average	High	No
Low	2.8 _{abcd}	3.9 _a	3.8 _b	4.4 _c
High	3.8 _d	3.3	4.0	3.9

Note. Means sharing the same subscript differ by $p < .05$.

self-rating of adaptive differentiation X ambiguity X FNE interaction, $F(2, 114) = 3.16$, $p < .05$, were obtained on analyses of how much nonexperimental subjects talked during the conversation. The patterns of these effects are difficult to interpret and appear not to either support or disconfirm experimental hypotheses. The means for the two interactions are presented in Tables 19 and 20 for the sake of completeness, but will not be discussed further.

When the proportion of time nonexperimental subjects spoke is examined, the effects obtained are, of course, perfectly inversely related to those obtained for the proportion of time experimental subjects spoke (Table 12). Nonexperimental subjects spoke proportionally least in the condition in which experimental subjects spoke most, that in which low FNE subjects received high feedback under conditions of low ambiguity.

Finally, the only other effects that were significant for nonexperimental subjects were obtained on the judges' ratings of how shy subjects sounded: feedback X ambiguity, $F(3, 110) = 2.86$, $p < .04$, feedback X ambiguity X FNE, $F(1, 110) = 4.64$, $p < .01$. As Table 21 shows, nonexperimental subjects were judged to be more shy when experimental subjects had received no feedback and image ambiguity was high rather than low, $p < .05$. Examination of the three-way interaction (see Table 22) shows that nonexperimental subjects were judged to be less shy when interacting with (a) low FNE/average feedback experimental subjects in

Table 19

Number of Seconds Nonexperimental Subjects Talked
as a Function of Feedback, Ambiguity, and FNE

Low Fear of Negative Evaluation				
Ambiguity	Feedback			
	Low	Average	High	No
Low	99.9 _a	130.3	70.8 _{bc}	110.5
High	105.6	96.0	136.7 _b	121.3
High Fear of Negative Evaluation				
Ambiguity	Feedback			
	Low	Average	High	No
Low	141.7 _a	111.1	129.9 _c	143.4
High	131.5	114.8	100.3	112.3

Note. Means sharing a common subscript differ by $p < .05$. The following two-way simple interactions were significant by $p < .05$: feedback X ambiguity within low FNE, ambiguity X FNE within high feedback, ambiguity X FNE within average feedback, feedback X FNE within low ambiguity.

Table 20

Number of Seconds Nonexperimental Subjects Talked
as a Function of Self-Rating of Adaptive
Differentiation, Ambiguity, and FNE

Low Fear of Negative Evaluation			
Self-Rating of Adaptive Differentiation			
Ambiguity	Low	Medium	High
Low	107.9	96.6	116.9 _c
High	106.0 _a	95.1 _b	154.0 _{abcd}
High Fear of Negative Evaluation			
Self-Rating of Adaptive Differentiation			
Ambiguity	Low	Medium	High
Low	126.9	123.8	138.8 _e
High	125.1	114.9	76.0 _{de}

Note. Means sharing a common subscript differ by $p < .05$. The following two-way simple interactions were significant by $p < .05$: self-rating X ambiguity within low FNE, FNE X ambiguity within high self-rating, FNE X ambiguity within medium self-rating, self-rating X FNE within low ambiguity, self-rating X FNE within high ambiguity.

Table 21

Raters' Judgments of How Shy Nonexperimental
Subjects Sounded as a Function of Feedback and Ambiguity

Ambiguity	Feedback			
	Low	Average	High	No
Low	3.3	3.4	4.1	3.0 _a
High	3.7	3.5	3.6	4.3 _a

Note. Means sharing a common subscript differ by $p < .05$.

Table 22

Raters' Judgments of How Shy Nonexperimental Subjects
Sounded as a Function of Feedback, Ambiguity, and FNE

Low Fear of Negative Evaluation				
Ambiguity	Feedback			
	Low	Average	High	No
Low	3.9	2.9 _a	4.6	3.7 _c
High	3.3	4.0 _a	3.6	4.0
High Fear of Negative Evaluation				
Ambiguity	Feedback			
	Low	Average	High	No
Low	2.8 _b	3.9	3.6	2.3 _{cd}
High	4.1 _b	3.0	3.6	4.5 _d

Note. Means sharing a common subscript differ by $p < .05$. The following two-way simple interactions were significant by $p < .05$: feedback X ambiguity within high FNE, ambiguity X FNE within average feedback, ambiguity X FNE within low feedback, ambiguity X FNE within no feedback, feedback X FNE within low ambiguity.

low rather than high ambiguity condition, $p < .05$, (b) high FNE/low feedback subjects in the low rather than high condition, $p < .05$, (c) low rather than high FNE's in the low ambiguity/no feedback cell, $p < .05$, and (d) high FNE's who received no feedback and were under conditions of low rather than high ambiguity, $p < .05$. Although three out of four of the significant between-cell differences show non-experimental subjects sounding less shy when talking to experimental subjects under low rather than high image ambiguity, the fact that the effects show up under different levels of feedback and FNE make them extremely difficult to interpret and they will not be discussed further.

No effects of adaptive differentiation self-ratings were obtained on judges' ratings of how shy nonexperimental subjects sounded.

Social Avoidance and Distress Scale: Correlational Data

Along with the Fear of Negative Evaluation Scale previously discussed at length, subjects were initially administered the Social Avoidance and Distress (SAD) Scale (Watson & Friend, 1969). Subjects' responses on the SAD had a mean of 6.8, a standard deviation of 5.17, a median of 6, and a Kudar-Richardson 20 reliability coefficient of .87. (This compares to Watson & Friend's norms of a mean of 9.1, standard deviation of 8.01, median of 7, and KR-20 of .94.)

Table 23 presents correlations between the SAD and other measures used in the present study. As can be seen,

Table 23
Correlations of SAD Scores with Other Measures

From Experimental Subjects:

Fear of Negative Evaluation	+.49*** ^a
In general, how shy of a person do you consider yourself to be?	+.57***
How relaxed did you feel...?	-.34***
How shy did you feel...?	+.30***
How good of an impression do you think you made...?	-.42***

From Nonexperimental Subjects:

How shy do you think the other subject is?	+.20*
How relaxed would you say the other subject was...?	-.23*

Taped Ratings:

How long subject talked	-.36***
How shy subject sounded	+.29**

Note. *** $p < .001$

** $p < .01$

* $p < .05$

^aWatson & Friend (1969) obtained a similar correlation of +.51, $p < .001$, between the SAD and FNE scales.

subjects' responses on the SAD correlate with experimental subjects' self-reports, nonexperimental subjects' ratings, and verbal behaviors.

The SAD was originally designed, as its name indicates, to measure both avoidance of being with or talking to others and the reported experience of a negative emotion in social interactions. However, factor analyses have since shown that the SAD may measure primarily social avoidance and only secondarily social anxiety (Patterson & Strauss, 1972). Regardless of whether the SAD taps avoidance, anxiety, or both, however, the patterns of correlations are clearly in line with what would be expected.

Sex Differences

When sex of experimental subject is included as a factor in the analyses (with image ambiguity, feedback, and FNE), only a smattering of sex effects are obtained (14 out of a possible 184 effects involving sex), none of which help in clarifying any of the effects already discussed. Since no systematic effects emerged, these are probably best regarded as Type I errors and will not be examined further.

CHAPTER IV

DISCUSSION

Taken as a whole, the data presented here tend to support the general proposition that shyness is related to individual's concerns with how they are being regarded and evaluated by others. However, there are anomalous and puzzling patterns of results on some measures that suggest that the manipulations had unanticipated effects upon subjects' interpersonal concerns and/or that the relationship between self-presentational concerns and indices of shyness is more complex than had been anticipated.

One finding, though, is striking: variables that were expected to affect subjects' concerns with their social images had a wide variety of effects on self-reports, ratings by others, and behavioral measures. Thus, it seems clear that factors that affect people's self-presentational concerns have wideranging effects upon both intra- and interpersonal aspects of the interaction process. It will be the purpose of this discussion to examine more closely what those effects are and how they are related to the experience of shyness.

Major Hypotheses

The experimental hypotheses under test were derived

from the theoretical proposition that shyness is a state of social anxiety arising in real or imagined contingent social interactions in which people are motivated to make a favorable impression on others, but doubt their ability to project images of themselves that will produce satisfactory reactions from them. It was predicted that such doubts should increase when people are unsure of how to appear to others in order to secure satisfactory reactions (i.e., image ambiguity is high), and when people believe they lack the attributes necessary to project the desired impressions. In addition, these factors were expected to have a greater effect upon high than low Fear of Negative Evaluation individuals since they are generally more highly motivated to make favorable impressions upon those with whom they interact.

Self-Reports of Shyness and Relaxation

Although the results were hindered by the weakness of the feedback manipulation, subjects' self-reports of shyness and relaxation were in line with predictions. High FNE subjects felt more shy and less relaxed during the conversation than lows, subjects in the high ambiguity condition felt less relaxed than those under conditions of low ambiguity, and high FNE's felt least relaxed of all when image ambiguity was high, as predicted.

When experimental subjects' self-reports are examined as a function of how adaptively differentiated they thought they were, irrespective of the feedback they received,

self-reported shyness increased and relaxation decreased as a negative function of self-ratings of adaptive differentiation. Those subjects rating themselves lowest in adaptive differentiation reported being the most shy and least relaxed.

The fact that subjects' self-ratings on a bogus trait that they believed was associated with making good impressions was related to subjectively experienced shyness and relaxation in the encounter provides supporting evidence that there is some relationship between self-presentational concerns and social anxiety. We do not know the full complement of variables that determined subjects' self-perceptions of adaptive differentiation, but we know they are related both to perceptions of one's ability to make good impressions on others and to the amount of discomfort experienced in interpersonal encounters. In addition, the correlational data presented in Table 2 show relationships, all in the appropriate direction, between subjects' self-reports of shyness/relaxation and measures of self-presentational concern.

Although the main effects obtained on subjects' self-reports of shyness and relaxation (i.e., ambiguity, FNE, self-rating of adaptive differentiation) were consistent with expectations, the predicted higher-order interactions did not emerge (with one exception). It seems likely that higher-order effects that included feedback as a variable may not have been obtained for the same reason that main

effects of feedback did not occur; the manipulation did not sufficiently alter subjects' perceptions of their own ability to make good impressions. However, it is more difficult to ascertain why, when subjects were trichotomized according to their self-ratings of adaptive differentiation, this factor did not interact with the others, particularly FNE. (The failure to obtain self-rating X ambiguity interactions may have been due to the nonorthogonality of the factors, as discussed earlier.) In short, although obtained effects support the model, the failure to obtain others--particularly two- and three-way interactions--does not. However, because a single failure to reject the null hypothesis may not be taken as disconfirmation of a theory (Hempel, 1966; Leary, 1979), we must conclude that the verdict is still out and await evidence from future research.

Nonexperimental Subjects' and Judges' Ratings

Although, as was discussed earlier, there is little reason to expect a close correspondence between self-reports of social anxiety and others' ratings of how anxious a given individual appears to be, it was expected that examination of group data would show that subjects exposed to stimuli designed to increase shyness would, on the average, be rated more shy and less relaxed than those placed in situations designed to minimize self-presentational concerns. Thus, the finding that both nonexperimental subjects and trained judges rated subjects receiving low feedback on adaptive differentiation as significantly

less shy than those receiving high and no feedback was unexpected and remains difficult to explain. No main effects of feedback were obtained on any other dependent measures that would suggest why this effect occurred. It seems clear, however, that subjects were behaving in some way discernable to both nonexperimental subjects in the face-to-face encounter and to judges listening only to audio tapes of the conversations that led to shyness ratings that were perfectly opposite the predictions.

A couple of admittedly post hoc explanations may be advanced. First, Schneider (1969) found that subjects who had previously received positive feedback on a bogus social sensitivity test were less self-enhancing when interacting with an interviewer who was to make a second evaluation than were subjects who had received negative feedback on the test. Schneider suggested that successful subjects did not wish to jeopardize their success by receiving a negative evaluation from the interviewer for immodesty. That is, they had little to gain and much to lose by being overly positive about themselves and were thus chiefly motivated to avoid disapproval. On the other hand, previously unsuccessful subjects had little to lose and much to gain by impressing the interviewer and were more positive about themselves, being primarily motivated to gain approval.

In the present study, it is possible that subjects who received high or no feedback (the no feedback subjects seemed to assume that, in absence of information to the

contrary, they were high in adaptive differentiation) may have wished to protect their gain by not coming on too strongly to the other subject who was later to evaluate them. Despite the fact they may not have been particularly anxious, these subjects may have adopted a laid-back nonassertive tact, making them appear somewhat "shy." Subjects in the low feedback condition, on the other hand, already stung by one negative evaluation, may have been quite motivated to avoid a second. Thus, despite possible misgivings about how they might appear, they may have made a deliberate attempt to create a favorable impression upon the nonexperimental subject. In attempting to do so, they may have appeared less subdued and less shy than subjects in the high feedback condition.

If this is the case, it suggests that subjects may have reacted to the low feedback, not as information regarding their lack of a trait associated with making good impressions, but simply as a negative, disapproving evaluation. Thus, subjects receiving low feedback may have actively sought the other's approval during the conversation (like Schneider's subjects), but did not feel shy since, for whatever reason, they did not accept the feedback as reflecting upon their self-presentational ability.

The bottom line is that negative self-relevant feedback should increase shyness and shylike behavior only if the individual interprets it as reflecting upon his or her ability to project self-presentations that will result in

satisfactory reactions from others. Negative feedback or evaluations that are not perceived as reflecting upon one's ability to achieve satisfactory reactions should result in increased motivation to gain others' approval and in heightened approval-seeking behavior. Given that the individual believes there is a relatively high probability of successfully gaining the other's approval, he/she should neither feel nor appear shy and, in fact, may appear the opposite.

A second possible reason why nonexperimental subjects and judges rated subjects in the high feedback condition as most shy is that social anxiety may be curvilinearly related to what would normally be considered overt manifestations of it, such that extremely shy and extremely nonshy people appear similarly on some dimensions. For example, both shys and nonshys may fail to participate fully in the interaction, although for different reasons, as will be discussed below. It may be, then, that the present feedback manipulation, given that it was weak, created only low to moderate amounts of anxiety, placing subjects in the "less shy" portion of the curve. If the curve depicting the relationship between shyness and others' ratings of it was bowl-shaped, there would appear to be a negative relationship between subjective shyness and others' shyness ratings.

Is there any evidence to support this conjecture? Although Pilkonis (1976, 1977b) did a detailed study of the behavioral consequences of shyness, he examined only two

levels of shyness and consistently reported only measures of linear relationships, thus precluding data showing curvilinear patterns.

A post hoc, exploratory analysis was performed on the present data via multiple regressions that included a quadratic term as a predictor variable, testing the null hypothesis that the regression coefficient associated with the quadratic term was equal to zero. When this was done, curvilinear relationships were found between subjects' self-reports of relaxation and (a) nonexperimental subjects' ratings of how relaxed, $F(1, 125) = 4.20$, $p < .05$, and (b) judges' ratings of how shy experimental subjects' were, $F(1, 125) = 3.73$, $p < .06$. These relationships are such that subjects were judged to be the most shy/least relaxed when they reported being either very relaxed or very nonrelaxed. In short, highly relaxed and highly nonrelaxed subjects were both rated as shy and nonrelaxed.

What were very relaxed subjects doing that made them appear shy and nonrelaxed? Although the present data are insufficient to give a full answer to this question, we may obtain a hint from an analysis of the relationship between self-reported relaxation and time spent talking (coded from the tapes). The time subjects spent talking is curvilinearly related to self-reports of relaxation, $F(1, 125) = 2.69$, $p < .10$, such that subjects talked most under moderate levels of relaxation, while the relaxed and nonrelaxed talked less. This relationship, if reliable, parallels the

inverse-U anxiety-performance curve obtained in other areas of research (e.g., Freeman, 1940).

Although nonrelaxed subjects were predicted to talk less for the reasons discussed in the Introduction (to not risk projecting inappropriate images, to be better able to hide nervousness, to convey the impression of a friendly listener, etc.), we may only speculate about subjects who were very relaxed. It may be that, for the very relaxed person, relaxation melts into interpersonal slovenness. Such individuals may be so unconcerned with how they are appearing to other interactants, that they do not really want to bother engaging in conversation with them. The effort of maintaining small talk is not worth the minimal personal benefits that may accrue and such individuals are not concerned with how it appears to semi-ignore other interactants and fail to participate fully in the encounter. Such an individual, quiet and aloof, may be misperceived as shy under some circumstances. The only data from the present study that bear upon this explanation of the effect in question tend not to support it. There is no relationship between either FNE or subjects' expressed concerns with making a good impression and the number of questions they asked the other, an indicant of how involved they were in the conversation.

In a related vein, when time spent talking is examined as a function of self-rating of adaptive differentiation

and FNE (Table 13), low FNE subjects were found to talk most when they had rated themselves medium on adaptive differentiation, whereas high FNE's talked most in the high self-rating cell. This suggests that time spent talking may be curvilinearly related to self-presentational concern as described above only for low FNE's, but linearly related to self-presentational concerns for high FNE's. That is, for people who are high in Fear of Negative Evaluation, even relatively high self-perceptions of one's ability to make good impressions may not be sufficient to overcome one's evaluation concerns to the point of reducing the degree to which the individual interacts with others. When the relationship between self-ratings of adaptive differentiation and time spent talking is examined separately via multiple regressions for high and low FNE's, this notion is partially confirmed: a linear relationship (but no curvilinear effect, $p > .90$) is obtained for high FNE's, $F(1, 56) = 4.19$, $p < .05$, whereas a hint of a curvilinear effect (but no linear one) is obtained for lows, $F(1, 63) = 2.19$, $p < .14$. Obviously, the present data are insufficient to properly examine the relationship between self-presentational concerns and interpersonal behaviors and additional research is needed in this area.

In short, there is evidence that others' ratings of shyness and time spent talking are curvilinearly related to subjective relaxation. Thus, it is conceivable that subjects in the low feedback condition appeared less shy because they

were higher up the talking-involvement curve than subjects receiving high or no feedback.

Although nonexperimental subjects' and judges' ratings of experimental subjects' shyness were contrary to predictions, an obtained feedback X FNE interaction on nonexperimental subjects' ratings of how relaxed experimental subjects were was more in line with expectations. Low FNE subjects were judged to be significantly less relaxed after they had received low feedback than average or no feedback. Low's were not judged to be significantly less relaxed in the low than high feedback cell, however, possibly due to the curvilinear relationships just discussed. (That is, low FNE's in the high feedback cell may have been lower down the talking-involvement curve.) In addition, feedback had no effect on relaxation ratings of high FNE subjects. Thus, although the obtained effects support the model, the failure to obtain others on the same item does not.

In summary, despite sometimes weak and conflicting results, some support was obtained for the notion that social anxiety increases as a joint function of the motivation to make a favorable impression and doubts about one's ability to do so. Needless-to-say, much additional work is needed to substantiate these findings.

Self-Presentational Concerns: Liabilities and Assets

One of the more curious effects obtained was the tendency for Low Fear of Negative Evaluation subjects in the low ambiguity and/or high feedback condition to stand out from

the other experimental subjects on a number of measures. Low FNE's in the low ambiguity/high feedback cell spoke the greatest proportion of the time, were spoken to least, were least liked, and created the least favorable impression on other subjects. In addition, ambiguity X FNE interactions showed that low FNE subjects in the low ambiguity condition tried least hard to appear adaptively differentiated and were judged to have engaged in the least eye contact. Also, a feedback X FNE interaction showed that low FNE's in the high feedback condition made the nonexperimental subjects feel the least comfortable. Taken together, these results suggest that those combinations of factors that were predicted to result in minimal shyness had a number of interesting side-effects.

Given the present data, it is difficult to determine precisely why subjects in those combinations of conditions were not responded to favorably. The best guess is that these subjects' relative lack of concern about how they were being perceived by the other subjects bordered on either aloofness or obnoxiousness. Low FNE's, by definition, are characteristically minimally concerned with being negatively evaluated by others, and once they learn they rank high in the ability to come across well and/or know they can control their impressions if they wish (by virtue of low image ambiguity), it is conceivable that they do not engage in the social amenities that people typically engage in when they

wish to make a favorable impression on others. There are, in fact, small but significant negative correlations between subjects' FNE scores and how friendly, $r = -.19$, and interested in others, $r = -.17$, they were judged to be by nonexperimental subjects, $p's < .05$. By their own admission, low FNE's were less interested in making a good impression than highs.

It may be fruitful to investigate the interaction styles and self-presentational strategies (if indeed they use any) of very low FNE people. From the present study, it appears that very low FNE's may fail to engage in the other-affirming gestures that would endear them to others, particularly when they have a degree of confidence in their ability to be regarded well. Such research on low FNE's should give some insight into what happens to interactions when people's self-presentational concerns are minimal and provide information about the role such concerns play in mediating smooth interaction.

Although it has not been explicitly stated, the feeling one gets from reading much of the FNE literature (e.g., Friend & Gilbert, 1973; Smith & Saranson, 1975) is that low FNE people are somehow better socially adjusted than highs, who are sometimes portrayed as overly concerned with how they are regarded by others. The present research suggests that too little FNE can be as disasterous to one's social life as too much and, as with most traits, a

moderate amount of concern with how one is being regarded and evaluated by others is probably the most socially adaptive.

Methodological Issues and Suggestions for Future Research

The present research suggests a number of methodological improvements and fruitful directions for future shyness research.

First, in retrospect, there is probably good reason to question the reliability/validity of the shyness self-report measure used in the present study ("How shy did you feel during the conversation?"). Given that psychologists themselves disagree about how shyness should be defined, it seems likely that naive subjects may have interpreted the question in differing ways. Some may have interpreted it according to the intended meaning ("How socially anxious did you feel...?"), whereas others may have read it as "How inhibited did you feel...?," or in some other way. Self-report measures of shyness should be refined for future research, possibly by including a number of items, such as "How anxious....," "How nervous....," and "How shy...did you feel?" Also, it may be useful to determine precisely how subjects themselves interpret questions phrased in terms of shyness.

In addition, measurement of shyness would be improved by including physiological measures of arousal, such as GSR, heart rate, and blood pressure, to provide more unequivocal evidence for or against the arousing properties

of variables that are hypothesized to affect shyness. Of course, such measures may occasionally be too obtrusive for some research purposes.

Third, a good deal of creative thought will need to go into devising manipulations that lead people to doubt their ability to come across well to others in a laboratory encounter. As discussed above, the bogus feedback employed in the present study appeared to have a minimal effect upon subjects' perceptions of their self-presentational ability. It is difficult to convince people they have a particular level of ability to come across well to others when they already have a pretty good idea about how others regard them.

In considering other ways to induce such a manipulation, it should be noted that many variables that affect people's doubts about their ability to make a favorable impression are confounded with variables that affect the motivation to make a favorable impression. For example, if we tell some subjects that the person they are interacting with is critical and judgmental, as opposed to supporting and accepting, they may doubt that they will be able to project images of themselves that will result in satisfactory reactions from the critical other. At the same time, however, it may decrease subjects' motivation to make a favorable impression upon a seemingly socially undesirable individual. In short, future research that tests hypotheses derived from

the present theory must devise ways to create self-presentational doubt without simultaneously affecting other variables.

Fourth, it was hypothesized earlier that negative, self-relevant feedback may have different effects upon people's interpersonal behaviors depending upon whether or not it is interpreted as reflecting upon one's ability to achieve satisfactory reactions from others. If it is perceived in such a way, it should result in shyness and in shylike (i.e., tentative, inhibited) behaviors. However, if it is regarded, not as indicative of one's self-presentational ability, but simply as a negative, disapproving personal evaluation, the individual should not feel or appear shy (although perhaps disappointed or depressed) and should make an active attempt to gain others' approval in subsequent interactions (cf. Schneider, 1969). This hypothesis seems to beg for experimental test.

Fifth, the present study obtained no consistent patterns of sex effects on the dependent measures, although Pilkonis (1976, 1977a, 1977b) found sex differences both in trait variables that are associated with shyness and in the degree to which males and females respond shyly to particular social stimuli. The relative absence of sex effects in the present study may be due to the fact that subjects interacted only with members of the same sex. Mixed-sex interactions should have slightly different interpersonal implications and generate different self-presentational concerns

for males and females and may result in sex differences in shyness (Pilkonis, 1977b; Zimbardo, 1977). Research is needed that investigates such differences.

Sixth, it would be useful to have a better measure of "chronic" social anxiety than the Social Avoidance and Distress Scale (Watson & Friend, 1969), the problems of which have already been discussed. A great deal of variability in subjects' reactions to the independent variables in the present study was likely due to individual differences in the general tendency to respond "shyly" in social situations. A scale measuring chronic shyness as defined here would allow us to account for a large percentage of what presently remains error variance. For maximum utility of the scale, it might be useful to devise separate subscales for the measurement of shyness versus audience anxiety.

Finally, there was an indication in post hoc analyses of the present data that self-reports of shyness are curvilinearly related to certain social behaviors and to others' reactions to shyness. Further attention should be devoted to examination of the behavioral accompaniments of shyness and to an understanding of their interpersonal functions. Not only is this information valuable in its own right, but once a fuller understanding of the relationship between shyness and particular behaviors is achieved, measures of those behaviors may be used as indices of shyness in future research.

Summary

A social psychological model of shyness was presented that conceptualizes shyness as a state of social anxiety that arises when people are motivated to make a favorable impression on others, but doubt their ability to project images of themselves that will result in satisfactory reactions from them. People may doubt their ability to come across satisfactorily to others either because they are unable to determine the nature of the image that will result in satisfactory reactions from others, or know how to act, but feel incapable of projecting the desired image. An experiment was conducted in which subjects classified as high or low in Fear of Negative Evaluation were motivated to project a particular image to another individual. Subjects were either told how people who project the image tend to act, or had no idea of how to project the image. In addition, subjects received bogus feedback indicating they were high, average, or low in the ability to project the image, or received no such information. Data obtained from self-reports of experienced anxiety, other interactants' ratings of the subject, and subjects' verbal behaviors provided some support for the model, although the results were not perfectly consistent. Increased shyness tended to be associated with high Fear of Negative Evaluation, high ambiguity regarding the nature of the valued image, and the belief that one ranked low on the ability to make good first impressions upon others, although these variables did not interact in the manner that had been predicted.

APPENDICES

APPENDIX A
INITIAL SUBJECT INSTRUCTIONS

APPENDIX A

INITIAL SUBJECT INSTRUCTIONS

This study is investigating factors that affect the kinds of impressions people make of one another when they first meet. Because all human interactions and relationships begin with a period in which people are just getting to know one another, it is important for us to understand more about the getting-acquainted process.

Your participation in the study will occur in three stages. First, I would like you to complete these background information questionnaires. They give us information about you that will help us understand how different types of people make first impressions. After you complete those questionnaires, I will leave the two of you alone to interact with one another for five minutes. At the end of that time, you will complete some final questionnaires on which you'll be asked to give your first impressions of and reactions to each others. I'll explain more about each stage of the study as we get there. Are there any questions?

The first thing I want you to do is read and sign these informed consent slips. They state that the nature of your participation in the study has been explained to you and you agree to participate. Then, complete these background information questionnaires. Your answers will be kept completely confidential, so be as accurate and as honest as you can. Also, be sure to answer every item.

APPENDIX B
BACKGROUND INFORMATION QUESTIONNAIRE

APPENDIX B

BACKGROUND INFORMATION QUESTIONNAIRE

Instructions: The following statements concern your personal reactions to and attitudes toward a number of different situations. No two statements are exactly alike, so consider each statement carefully before answering. If a statement is true or mostly true as applied to you, write a T in the space beside the question. If a statement is false or mostly false as applied to you, write an F in the space beside the question. It is important that you answer as frankly and as honestly as you can. Your answers will be kept in strictest confidence.

Name _____

Date _____

- ___ 1. I feel relaxed even in unfamiliar social situations.
- ___ 2. I try to avoid situations which force me to be very sociable.
- ___ 3. It is easy for me to relax when I am with strangers.
- ___ 4. I have no particular desire to avoid people.
- ___ 5. I often find social occasions upsetting.
- ___ 6. I usually feel calm and comfortable at social occasions.
- ___ 7. I am usually at ease when talking to someone of the opposite sex.
- ___ 8. I try to avoid talking to people unless I know them well.
- ___ 9. If the chance comes to meet new people, I often take it.
- ___ 10. I often feel nervous or tense in casual get-togethers in which both sexes are present.
- ___ 11. I am usually nervous with people unless I know them well.

- ___ 12. I usually feel relaxed when I am with a group of people.
- ___ 13. I often want to get away from people.
- ___ 14. I usually feel uncomfortable when I am in a group of people I don't know.
- ___ 15. I usually feel relaxed when I meet someone for the first time.
- ___ 16. Being introduced to people makes me tense and nervous.
- ___ 17. Even though a room is full of strangers, I may enter it anyway.
- ___ 18. I would avoid walking up and joining a large group of people.
- ___ 19. When my superiors want to talk with me, I talk willingly.
- ___ 20. I often feel on edge when I am with a group of people.
- ___ 21. I tend to withdraw from people.
- ___ 22. I don't mind talking to people at parties or social gatherings.
- ___ 23. I am seldom at ease in a large group of people.
- ___ 24. I often think up excuses in order to avoid social engagements.
- ___ 25. I sometimes take the responsibility for introducing people to each other.
- ___ 26. I try to avoid formal social occasions.
- ___ 27. I usually go to whatever social engagements I have.
- ___ 28. I find it easy to relax with other people.
- ___ 29. I rarely worry about seeming foolish to others.
- ___ 30. I worry about what people will think of me even when I know it doesn't make any difference.
- ___ 31. I become tense and jittery if I know someone is sizing me up.
- ___ 32. I am unconcerned even if I know people are forming an unfavorable impression of me.

- ___ 33. I feel very upset when I commit some social error.
- ___ 34. The opinions that important people have of me cause me little concern.
- ___ 35. I am often afraid that I may look ridiculous or make a fool out of myself.
- ___ 36. I react very little when other people disapprove of me.
- ___ 37. I am frequently afraid of other people noting my shortcomings.
- ___ 38. The disapproval of others would have little effect on me.
- ___ 39. If someone is evaluating me, I tend to expect the worst.
- ___ 40. I rarely worry about what kind of impression I am making on someone.
- ___ 41. I am afraid that others will not approve of me.
- ___ 42. I am afraid that people will find fault with me.
- ___ 43. Other people's opinions of me do not bother me.
- ___ 44. I am not necessarily upset if I don't please someone.
- ___ 45. When I am talking to someone, I worry about what they may be thinking about me.
- ___ 46. I feel that you can't help making social errors, so why worry about it.
- ___ 47. I am usually worried about what kind of impression I make.
- ___ 48. I worry a lot about what my superiors think of me.
- ___ 49. If I know someone is judging me, it has little effect on me.
- ___ 50. I worry that others will think I am not worthwhile.
- ___ 51. I worry very little about what others may think of me.
- ___ 52. Sometimes I think I am too concerned with what other people think of me.

- ___ 53. I often worry that I will say or do the wrong things.
- ___ 54. I am often indifferent to the opinions others have of me.
- ___ 55. I am usually confident that others will have a favorable impression of me.
- ___ 56. I often worry that people who are important to me won't think very much of me.
- ___ 57. I brood about the opinions my friends have about me.
- ___ 58. I become tense and jittery if I know I am being judged by my superiors.
- ___ 59. In general, how shy of a person do you consider yourself to be?

:___:___:___:___:___:___:___:___:
 Extremely Very Moderately Somewhat Slightly Not at all

APPENDIX C

INSTRUCTION SHEETS CONTAINING
AMBIGUITY MANIPULATION

INSTRUCTIONS FOR HIGH AMBIGUITY CONDITION

In just a few minutes you will be interacting face-to-face with the other subject participating in this session of the study. You will be allowed to talk with one another for five minutes, after which you will complete questionnaires giving your impressions of and reactions to the other person and telling how you felt during the conversation. During the conversation, you may discuss whatever you wish, except that we ask that you don't discuss any aspect of this experiment.

Past research has shown that a very important determinant of the kinds of first impressions people make on others is what psychologists call Adaptive Differentiation. People who rank high on the trait of Adaptive Differentiation tend to be better liked by other people, make more favorable impressions, are more successful at interpersonal relations, and are evaluated more positively by others. In this study, we are interested in validating earlier research that showed that Adaptive Differentiation to be an important determinant of making good first impressions. Thus, we expect people who are high in Adaptive Differentiation to be evaluated more positively and liked better by other subjects in this study.

Some of the items on the questionnaire you just completed measured Adaptive Differentiation, but because it is the major trait of interest in this study, we will withhold further description of it until the session is completed. At that time, it will be explained fully.

INSTRUCTIONS FOR LOW AMBIGUITY CONDITION

In just a few minutes you will be interacting face-to-face with the other subject participating in this session of the study. You will be allowed to talk with one another for five minutes, after which you will complete questionnaires giving your impressions of and reactions to the other person and telling how you felt during the conversation. During the conversation, you may discuss whatever you wish, except we ask that you don't discuss any aspect of this experiment.

Past research has shown that a very important determinant of the kinds of first impressions people make on others is what psychologists call Adaptive Differentiation. People who rank high on the trait of Adaptive Differentiation tend to be better liked by other people, make more favorable impressions, are more successful at interpersonal relations, and are evaluated more positively by others. In this study, we are interested in validating earlier research that showed Adaptive Differentiation to be an important determinant of making good first impressions. Thus, we expect people who are high in adaptive differentiation to be evaluated more positively and liked better by other subjects in this study.

Some of the items on the questionnaire you just completed measured Adaptive Differentiation. Although we will explain the nature of this trait in greater detail at the conclusion of the study, it might be mentioned that people who rank high in Adaptive Differentiation tend to be interested in other people, smile frequently, are optimistic and open-minded, and appear well-adjusted to others. This should give you a clearer idea of the nature of the trait.

INSTRUCTIONS FOR NONEXPERIMENTAL SUBJECT

In just a few minutes you will be interacting face-to-face with the other subject participating in this session of the study. You will be allowed to talk with one another for five minutes, after which you will complete questionnaires giving your impressions of and reactions to the other person and telling how you felt during the conversation. During the conversation, you may discuss whatever you wish, except that we ask that you don't discuss any aspect of this experiment.

APPENDIX D

BACKGROUND INFORMATION SCORESHEET

APPENDIX D
BACKGROUND INFORMATION SCORESHEET

Wilson Interpersonal Orientation Scale

<u>Trait</u>	<u>Percentile Ranking</u>
Thematicism	_____
Adaptive Differentiation	_____
Interpersonal Acuity	_____

APPENDIX E

POST INTERACTION QUESTIONNAIRE
(EXPERIMENTAL SUBJECT)

APPENDIX E
POST INTERACTION QUESTIONNAIRE
(EXPERIMENTAL SUBJECT)

Instructions: Please answer each of the following questions by placing an "X" somewhere along each line. Be sure to answer every question as accurately and honestly as you can. Your responses will be kept confidential.

1. How relaxed did you feel during the conversation?

Extremely _____ Very _____ Moderately _____ Somewhat _____ Slightly _____ Not at all _____

2. How good of an impression do you think you made on the other subject?

Extremely _____ Very _____ Moderately _____ Somewhat _____ Slightly _____ Not at all _____

3. How shy did you feel during the conversation?

Extremely _____ Very _____ Moderately _____ Somewhat _____ Slightly _____ Not at all _____

4. How hard did you try to appear adaptively differentiated to the other subject?

Extremely _____ Very _____ Moderately _____ Somewhat _____ Slightly _____ Not at all _____

5. How shy do you think the other subject is?

Extremely _____ Very _____ Moderately _____ Somewhat _____ Slightly _____ Not at all _____

6. How much did you like the other subject?

Extremely _____ Very _____ Moderately _____ Somewhat _____ Slightly _____ Not at all _____

7. How concerned were you with making a good impression on the other subject during the conversation?

Extremely _____ Very _____ Moderately _____ Somewhat _____ Slightly _____ Not at all _____

8. To what degree did you feel you were able to control the impressions the other subject formed of you?

Extremely Very Moderately Somewhat Slightly Not at all

9. How high would you rate yourself on adaptive differentiation?

Extremely Very Moderately Somewhat Slightly Not at all

10. How clear is it to you how people who are high in adaptive differentiation tend to act?

Extremely Very Moderately Somewhat Slightly Not at all

APPENDIX F

POST INTERACTION QUESTIONNAIRE
(NONEXPERIMENTAL SUBJECT)

APPENDIX F

POST INTERACTION QUESTIONNAIRE

(NONEXPERIMENTAL SUBJECT)

Instructions: Please answer each of the following questions by placing an "X" somewhere along each line. Be sure to answer every question as accurately and honestly as you can. Your responses will be kept confidential.

1. How relaxed would you say the other subject was during the conversation?

Extremely Very Moderately Somewhat Slightly Not at all

2. How much did you like the other subject?

Extremely Very Moderately Somewhat Slightly Not at all

3. How shy do you think the other subject is?

Extremely Very Moderately Somewhat Slightly Not at all

4. What was your overall impression of the other subject?

Very	Somewhat	Slightly	Slightly	Somewhat	Very
Negative	Negative	Negative	Positive	Positive	Positive

5. How comfortable did you feel during your conversation with the other subject?

Extremely Very Moderately Somewhat Slightly Not at all

6. How much eye contact did the other subject give you during the conversation?

Very	A good deal	A moderate	Some	Very little	None
much		amount			

7. Rate the other subject on the following scales:

optimistic : __.__.__.__.__.__.__: pessimistic
open-minded : __.__.__.__.__.__.__: close-minded
poorly adjusted : __.__.__.__.__.__.__: well adjusted
smiled a lot : __.__.__.__.__.__.__: did not smile
unfriendly : __.__.__.__.__.__.__: friendly
interested : __.__.__.__.__.__.__, not interested
in others in others

APPENDIX G
NUMBER OF SUBJECTS PER CELL

APPENDIX G
NUMBER OF SUBJECTS PER CELL

Low Fear of Negative Evaluation				
Ambiguity	Feedback			
	Low	Average	High	No
Low	10	8	5	11
High	6	10	9	9
High Fear of Negative Evaluation				
Ambiguity	Feedback			
	Low	Average	High	No
Low	7	8	11	5
High	10	5	6	8

REFERENCES

- Abelson, R. P. A script theory of understanding, attitude, and behavior. In J. Carroll & T. Payne (Eds.), Cognition and social behavior. Hillsdale, NJ: Lawrence Erlbaum Associates, 1976.
- Bandura, A. Principles of behavior modification. New York: Holt, Rinehart, & Winston, 1969.
- Baumeister, R. F., & Jones, E. E. When self-presentation is constrained by the target's knowledge: Consistency and compensation. Journal of Personality and Social Psychology, 1978, 36, 608-618.
- Berger, S. E., Levin, P., Jacobson, L. I., & Milham, J. Gain approval or avoid disapproval: Comparison of motives strengths in high need for approval scorers. Journal of Personality, 1977, 45, 458-468.
- Briggs, S. R., Cheek, J. M., & Buss, A. H. An analysis of the self-monitoring scale. Journal of Personality and Social Psychology, 1980, 38, 679-686.
- Buss, A. H. Self-consciousness and social anxiety. New York: W. H. Freeman & Co., 1980.
- Cacioppo, J. T., Glass, C. R., & Merluzzi, T. V. Self-statements and self-evaluations: A cognitive response analysis of heterosocial anxiety. Cognitive Therapy and Research, 1979, 3, 249-262.
- Cattell, R. B. Personality and mood by questionnaire. San Francisco: Josey-Bass, 1973.
- Cheek, J., & Buss, A. H. Scales of shyness, sociability, and self-esteem, and correlations among them. Unpublished research, University of Texas, 1980.
- Clark, J. V., & Arkowitz, H. Social anxiety and self-evaluation of interpersonal performance. Psychological Reports, 1975, 36, 211-221.

- Clevinger, T. A synthesis of experimental research in stage fright. Quarterly Journal of Speech, 1959, 45, 134-145.
- Comrey, A. L. Scales for measuring compulsion, hostility, neuroticism, and shyness. Psychological Reports, 1965, 16, 697-700.
- Comrey, A. L., & Jamison, K. Verification of six personality factors. Educational and Psychological Measurement, 1966, 26, 945-953.
- Crowne, D. P., & Marlowe, D. The approval motive: Studies in evaluative dependence. New York, Wiley, 1964.
- Crozier, W. R. Shyness as a dimension of personality. British Journal of Social and Clinical Psychology, 1979, 18, 121-128.
- Darwin, C. The expression of emotion in man and animals. New York: Philosophical Library, 1955.
- Derlega, A. J., Wilson, M., & Chaikin, A. L. Friendship and disclosure reciprocity. Journal of Personality and Social Psychology, 1976, 34, 578-582.
- Dibner, A. S. Ambiguity and anxiety. Journal of Abnormal and Social Psychology, 1958, 56, 165-174.
- Dickens, M., Gibson, F., & Prall, C. An experimental study of the overt manifestations of stage fright. Speech Monographs, 1950, 17, 37-47.
- Dixon, J. J., de Monchaux, C., & Sandler, J. Patterns of anxiety: An analysis of social anxieties. British Journal of Medical Psychology, 1957, 30, 102-112.
- Efran, J. S. Looking for approval: Effects on visual behavior of approbation from different persons differing in importance. Journal of Personality and Social Psychology, 1968, 10, 21-25.
- Efran, J. S., & Korn, P. R. Measurement of social caution: Self-appraisal, role playing, and discussion behavior. Journal of Clinical and Consulting Psychology, 1969, 33, 78-83.
- Eysenck, H. J., & Eysenck, S. B. G. Personality structure and measurement. San Diego: Robert R. Knapp, 1969.

- Farrell, A. D., Mariotto, M. J., Conger, A. J., Curran, J. P., & Wallander, J. L. Self-ratings and judges' ratings of heterosexual social anxiety and skill: A generalizability study. Journal of Clinical and Consulting Psychology, 1979, 47, 164-175.
- Fenigstein, A. Self-consciousness, self-attention, and social interaction. Journal of Personality and Social Psychology, 1979, 37, 75-86.
- Fenigstein, A., Scheier, M. F., & Buss, A. H. Public and private self-consciousness: Assessment and theory. Journal of Clinical and Consulting Psychology, 1975, 43, 522-527.
- Freeman, G. L. The relationship between performance level and bodily activity level. Journal of Experimental Psychology, 1940, 26, 606.
- Friend, R. M., & Gilbert, J. Threat and fear of negative evaluation as determinants of locus of social comparison. Journal of Personality, 1973, 41, 328-340.
- Gabrenya, W. K., & Arkin, R. M. Self-monitoring scale: Factor structure and correlates. Personality and Social Psychology Bulletin, 1980, 6, 13-22.
- Geller, D. M., Goodstein, L., Silver, M., & Sternberg, W. C. On being ignored: The effects of the violation of implicit rules of social interaction. Sociometry, 1974, 37, 541-556.
- Goffman, E. On facework. Psychiatry, 1955, 18, 213-231.
- Goffman, E. The presentation of self in everyday life. New York: Doubleday, 1959.
- Hempel, C. G. Philosophy of natural science. Englewood Cliffs, NJ: Prentice-Hall, 1966.
- Ickes, W., & Barnes, R. D. The role of sex and self-monitoring in unstructured dyadic interactions. Journal of Personality and Social Psychology, 1977, 35, 315-330.
- Jackson, D. N. Personality research form. Goshen, NY: Research Psychologists Press, 1966.
- Jones, E. E., & Gerard, H. B. Foundations of social psychology. New York, Wiley, 1967.

- Jones, E. E., Gergen, K. J., Gumpert, P., & Thibaut, J. W. Some conditions affecting the use of ingratiation to influence performance evaluation. Journal of Personality and Social Psychology, 1965, 1, 613-625.
- Jones, E. E., Gergen, K. J., & Jones, R. G. Tactics of ingratiation among leaders and subordinates in a status hierarchy. Psychological Monographs, 1963, 77 (3, Whole No. 566).
- Jones, E. E., & Wortman, C. Ingratiation: An attributional analysis. Morristown, NJ: General Learning Press, 1973.
- Kaplan, D. M. On shyness. International Journal of Psychoanalysis, 1972, 53, 439-453.
- Kelley, H. H. Attribution in social psychology. In D. Levine (Ed.), Nebraska symposium on motivation. Lincoln, Nebraska: University of Nebraska Press, 1967.
- Knight, M. L., & Borden, R. J. Performer's affect and behavior: Relationships with audience size and expertise. Paper presented at the meeting of the American Psychological Association, Toronto, 1978.
- Lazarus, P. J. An experimental treatment program for the amelioration of shyness in children (Doctoral dissertation, University of Florida, 1977). Dissertation Abstracts International, 1978, 38, 6621A-6622A. (University Microfilms No. 7806718).
- Leary, M. R. Levels of disconfirmability and social psychological theory: A response to Greenwald. Personality and Social Psychology Bulletin, 1979, 5, 149-153.
- Lesse, S. Anxiety: Its components, development, and treatment. New York: Grune & Stratton, 1970.
- McGovern, L. P. Dispositional social anxiety and helping behavior under three conditions of threat. Journal of Personality, 1976, 44, 84-97.
- Meichenbaum, D. H., Gilmore, J. B., & Fedoravicius, A. Group insight versus group desensitization in treating speech anxiety. Journal of Consulting and Clinical Psychology, 1971, 36, 410-421.
- Modigliani, A. Embarrassment, facework, and eye-contact: Testing a theory of embarrassment. Journal of Personality and Social Psychology, 1971, 17, 15-24.

- Mulac, A., & Sherman, A. R. Relationships among four parameters of speaker evaluation: Speech skill, source credibility, subjective speech anxiety, and behavioral speech anxiety. Speech Monographs, 1975, 42, 302-310.
- Murray, D. C. Talk, silence, and anxiety. Psychological Bulletin, 1971, 75, 244-260.
- Natale, M., Jaffe, J., & Entin, E. Vocal interruptions in dyadic communication as a function of speech and social anxiety. Journal of Personality and Social Psychology, 1979, 37, 865-878.
- Patterson, M. L., & Strauss, M. E. An examination of the discriminant validity of the social avoidance and distress scale. Journal of Consulting and Clinical Psychology, 1972, 39, 169.
- Philips, G. M. Reticence: Pathology of the normal speaker. Speech Monographs, 1968, 35, 39-49.
- Pilkonis, P. A. Shyness: Public behavior and private experience (Doctoral dissertation, Stanford University, 1976). Dissertation Abstracts International, 1977, 37, 5442B. (University Microfilms No. 77-7144).
- Pilkonis, P. A. Shyness, public and private, and its relationship to other measures of social behavior. Journal of Personality, 1977, 45, 585-595 (a).
- Pilkonis, P. A. The behavioral consequences of shyness. Journal of Personality, 1977, 45, 596-611 (b).
- Post, A. L., Wittmaier, B. C., & Radin, M. E. Self-disclosure as a function of state and trait anxiety. Journal of Consulting and Clinical Psychology, 1978, 46, 12-19.
- Rehm, L. P., & Marston, A. R. Reduction of social anxiety through modification of self-reinforcement. Journal of Consulting and Clinical Psychology, 1968, 32, 565-574.
- Sanchez-Craig, B. M. Cognitive and behavioral coping strategies in the reappraisal of stressful social situations. Journal of Counseling Psychology, 1976, 23, 565-574.
- Schlenker, B. R. Self-presentation: Managing the impression of consistency when reality interferes with self-enhancement. Journal of Personality and Social Psychology, 1975, 32, 1030-1037.

- Schlenker, B. R. Impression management: The self-concept, social identity, and interpersonal relations. Belmont, Cal.: Brooks/Cole, 1980.
- Schneider, D. J. Tactical self-presentation after success and failure. Journal of Personality and Social Psychology, 1969, 13, 262-268.
- Sherman, A. R., Mulac, A., & McCann, M. J. Synergistic effect of self-relaxation and rehearsal feedback in the treatment of subjective and behavioral dimensions of speech anxiety. Journal of Consulting and Clinical Psychology, 1974, 42, 819-827.
- Silver, S. E., Leary, M. R., & Schlenker, B. R. The multidimensionality of self-monitoring. Paper presented at the meeting of the Southeastern Psychological Association, Washington, 1980.
- Smith, R. E., & Campbell, A. L. Social anxiety and strain toward symmetry in dyadic attraction. Journal of Personality and Social Psychology, 1973, 28, 101-107.
- Smith, R. E., & Saranson, I. G. Social anxiety and the evaluation of negative interpersonal feedback. Journal of Consulting and Clinical Psychology, 1975, 43, 429.
- Snyder, M. Self-monitoring of expressive behavior. Journal of Personality and Social Psychology, 1974, 30, 526-537.
- Spielberger, C. D. Theory and research on anxiety. In C. D. Spielberger (Ed.), Anxiety and behavior. New York: Academic Press, 1968.
- Storms, M. D., & McCaul, K. D. Attribution processes and emotional exacerbation of dysfunctional behavior. In J. H. Harvey, W. J. Ickes, & R. F. Kidd (Eds.), New directions in attribution research, Vol. 1. Hillsdale, NJ: Lawrence Erlbaum Associates, 1976.
- Taylor, D. A., Altman, I., & Sorrentino, R. Interpersonal exchange as a function of rewards and costs and situational factors: Expecting confirmation and disconfirmation. Journal of Experimental Social Psychology, 1969, 5, 324-339.
- Tedeschi, J. T., Schlenker, B. R., & Bonoma, T. V. Conflict, power and games: The experimental study of interpersonal relations. Chicago: Aldine, 1973.
- Thibaut, J. W., & Kelley, H. H. The social psychology of groups. New York: Wiley, 1959.

Walster, E. The effect of self-esteem on romantic liking. Journal of Experimental Social Psychology, 1965, 1, 184-197.

Watson, D., & Friend, R. Measurement of social-evaluative anxiety. Journal of Consulting and Clinical Psychology, 1969, 33, 448-457.

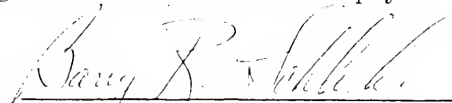
Zimbardo, P. G. Shyness. New York: Jove, 1977.

Zimbardo, P. G., Pilkonis, P. A., & Norwood, R. The silent prison of shyness. ONR Tech. Report Z-17, Stanford University, 1974.

BIOGRAPHICAL SKETCH

Mark Richard Leary was born in Morgantown, West Virginia, on November 29, 1954, the oldest son of Edward and Eleanor (Durrett) Leary. After residing in the suburbs of Baltimore during Mark's elementary school years, the Leary family (with the addition of younger brother, Dale) returned to their native hills and settled in Elkins, a small town in the northern mountains of West Virginia. Following graduation from Elkins High School in 1972, Mark entered West Virginia Wesleyan College where he majored in psychology. A significant portion of his undergraduate career was devoted to non-academic interests, however, including the college jazz ensemble and radio broadcasting. Mark received his Bachelor of Arts degree, summa cum laude, from West Virginia Wesleyan in 1976 and the Master of Arts degree in psychology from the University of Florida in 1978. Having received his Ph. D. in psychology from the University of Florida in 1980, Leary is now Assistant Professor of Psychology at Denison University, Granville, Ohio.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



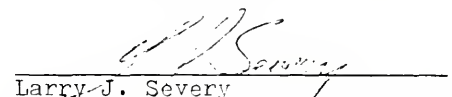
Barry R. Schlenker
Associate Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



Marvin E. Shaw
Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



Larry J. Severy
Associate Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.



Ted Landsman
Professor of Psychology

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully acceptable, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

James J. Algina

James J. Algina
Assistant Professor of
Foundations of Education

This dissertation was submitted to the Graduate Faculty of the Department of Psychology in the College of Liberal Arts and Sciences and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

August, 1980

Dean, Graduate School

